FIRE LOSSES IN BRITISH COLUMBIA IN 1980

Published by

Office of the Fire Commissioner

Province of British Columbia

Ministry of Attorney General

TABLE OF CONTENTS

	Page
Summary of Fire Losses	2
Fire Losses by Municipalities and Fire Districts	4
Fire Losses and Casualties by Month	5
Fire Loss Statistics for All Fires:	
- Act or Omission	6
- Form of Heat	7
- Fire Service	7
- Fuel or Energy	7
- Level of Origin of Fire	7
- Material First Ignited	7
- Area of Origin	9
- Property Classification	10
- Source of Ignition	14
- Sprinkler Protection	15
- Time of Fire	15
- Day of Week	16
Circumstances Contributing to Fire Casualties	17
Summary of Fire Losses by Property Classifications	18
Fire Losses of $500,000 and Over	19
10-Year Fire Loss Comparison, 1971 - 1980	20
Charts, 1971 - 1980:	
- 1 - Number of Fires	21
- 2 - Number of Fires per 1,000 Persons	21
- 3 - Annual Actual and Adjusted Fire Losses	22
- 4 - Actual and Adjusted Average Loss per Fire	22
- 5 - Actual and Adjusted Annual Per Capita Losses	23
- 6 - Annual Number of Fire Fatalities	23

Province of British Columbia

Ministry of Attorney General

Office of the
Fire Commissioner
2780 East Broadway
Vancouver
British Columbia
V5M 1Y8
Phone: 251-3131

FIRE LOSSES IN 1980

Seventy-seven persons died and 308 were injured as a result of 7,605 fires in 1980, causing a total dollar loss of $108,664,176. In 1979, 7,656 fires resulted in a loss of $106.3 million and 125 persons dead.

It must be noted that suicides by fire and fatalities from motor vehicle accident fires were included as fire deaths in previous years. The statistics for 1980 no longer include those fire casualties. This change was made to be in line with the standard practice in other provinces. (For comparison purposes, however, if these two categories of fire deaths were included for 1980, the number would have been 89 instead of 77.)

The average loss per fire for the province in 1980 was $14,289 and the per capita loss was $41.22. There was an average of 2.88 fires for every 1,000 persons in British Columbia.

Fire Fatalities

Forty-one men, 16 women and 20 children lost their lives as a result of fire.

- 40 of these resulted from careless smoking and impairment by liquor contributed significantly to many of them.
- 4 persons were killed as a result of arson.
- 6 persons died from fire resulting from improper installations or improper use of solid fuel fired equipment.
- 40 persons who died from fire were asleep at the time of the fire - this accounts for a hefty 57 percent.

Residential Fires

28.1 percent of fires were in one and two family dwellings, resulting in a total loss of $28.1 million. A further 6.8 percent were in apartment buildings with a loss exceeding $4.5 million.

These two residential categories accounted for 34.9 percent of the total number of fires and 29.9 percent of the total 1980 fire losses in the province.

Sixty of the 77, or 78 percent of fire fatalities occurred in residential fires.

Educational Institutions

There were 91 fires in educational institutions in 1980 resulting in a loss of $8.2 million. In 1979, 123 fires in educational institutions caused a loss of $9.3 million.

Arson

1,593 fires out of the total 7,605 fires in 1980 were deliberately set, causing a loss of $19.9 million.

Large Loss Fires

There were 24 fires in which the individual losses exceeded $500,000 each. Although they accounted for only 0.3 percent of the total fires, they were responsible for losses of $32.9 million, constituting 31 percent of the province's annual dollar losses.

Included in this large loss category were 4 'set' fires.

Automobile Fires

Automobile fires accounted for 20.3 percent of the number of fires in 1980, causing a loss of $2.5 million.

Time

	% Fires	% Dollar Loss	% Fatalities
midnight - 8 a.m.	29	49	57
8 a.m. - 4 p.m.	34	26	14
4 p.m. - midnight	37	25	29

Although the fewest fires were reported from midnight to 8 a.m., fires occurring during this period caused the most harm in terms of dollar losses and fire fatalities.

Gordon R. Anderson
Fire Commissioner

FIRE LOSSES IN MUNICIPALITIES AND FIRE DISTRICTS, 1980

CITY MUNICIPALITIES

	Incidents	$ Loss	Injured	Dead		Incidents	$ Loss	Injured	Dead
Armstrong	--	--	--	--	Nelson	22	138,637	2	--
Burnaby	336	1,787,328	19	1	N. Vancouver City	107	589,010	1	1
Castlegar	12	176,049	--	--	New Westminster	112	1,338,952	2	6
Courtenay	18	58,515	--	--	Port Alberni	85	393,005	4	--
Cranbrook	22	2,846,521	1	--	Port Coquitlam	37	2,145,987	4	--
Dawson Creek	43	993,493	--	--	Penticton	81	381,844	13	3
Duncan	29	197,137	--	--	Prince George	313	1,742,057	3	1
Enderby	2	28,000	--	--	Port Moody	19	108,050	--	--
Fernie	17	208,819	2	--	Prince Rupert	8	284,906	--	--
Grand Forks	5	56,220	--	--	Revelstoke	9	233,054	--	--
Greenwood	1	10,000	--	--	Rossland	2	975	--	--
Fort St. John	61	3,239,845	1	--	Trail	22	598,057	--	--
Kamloops	178	1,893,909	6	3	Vancouver	1,427	11,953,774	73	7
Kelowna	97	1,601,099	3	--	Vernon	34	1,618,052	--	--
Kimberley	7	35,800	--	--	Victoria	206	3,610,471	30	6
Langley	88	708,933	12	--	White Rock	19	148,470	3	1
Nanaimo	141	1,353,141	11	3					

DISTRICT MUNICIPALITIES

	Incidents	$ Loss	Injured	Dead		Incidents	$ Loss	Injured	Dead
Abbotsford-Sumas	37	444,455	--	--	North Vancouver	193	1,113,478	8	--
Campbell River	26	346,708	1	--	Oak Bay	29	73,997	6	--
Central Saanich	19	192,376	--	2	Peachland	15	247,400	--	--
Chilliwack	94	1,189,863	4	2	Port Hardy	5	39,454	--	--
Coldstream	11	35,838	--	--	Pitt Meadows	9	110,020	--	--
Delta	147	1,265,763	2	1	Powell River	26	171,111	2	--
Esquimalt	38	185,891	--	--	Richmond	223	2,271,777	12	--
Houston	12	119,000	--	--	Saanich	153	521,908	9	--
Kent	6	157,354	--	--	Spallumcheen	7	61,100	--	--
Kitimat	41	5,325,747	1	--	Sparwood	20	66,300	1	1
Langley	107	961,786	3	--	Summerland	15	145,349	--	--
Mackenzie	25	64,148	1	--	Salmon Arm	51	266,135	--	--
Mission	27	220,011	--	1	Squamish	21	50,935	--	--
Maple Ridge	96	1,575,315	6	--	Surrey	328	2,854,969	9	1
Matsqui	93	802,881	3	--	Terrace	31	226,452	4	2
North Cowichan	40	445,163	2	--	Whistler	9	119,380	1	--
North Saanich	6	85,853	--	--	West Vancouver	88	1,521,600	4	--

FIRE PROTECTION DISTRICTS AND COUNTIES (NON-MUNICIPAL AREAS)

	Incidents	$ Loss	Injured	Dead		Incidents	$ Loss	Injured	Dead
Cariboo	438	7,705,862	4	8	Sooke	18	257,216	--	--
Colwood	26	50,387	3	--	University of B.C.	21	657,340	2	--
Kootenay	156	4,146,444	3	1	Vancouver	32	724,278	--	1
Langford	34	68,315	1	--	Victoria	50	535,210	--	1
Nanaimo	176	2,260,231	4	7	View Royal	5	15,600	--	--
Ocean Falls	2	254,521	1	--	Westminster	64	734,315	3	4
Prince Rupert	110	3,319,889	3	2	Yale	304	4,899,871	5	2

TOWN MUNICIPALITIES

	Incidents	$ Loss	Injured	Dead		Incidents	$ Loss	Injured	Dead
Comox	22	64,120	--	--	Merritt	20	133,548	--	--
Creston	20	5,749,460	--	--	Quesnel	51	302,790	--	1
Golden	8	107,000	--	--	Sidney	7	18,256	--	--
Hope	2	14,270	--	--	Smithers	17	376,000	1	--
Ladysmith	13	114,037	--	--	Williams Lake	20	339,623	--	1

VILLAGE MUNICIPALITIES

	Incidents	$ Loss	Injured	Dead		Incidents	$ Loss	Injured	Dead
Ashcroft	3	10,000	--	--	Nakusp	1	60,000	--	--
Burns Lake	9	371,530	--	--	New Denver	--	--	--	--
Cache Creek	3	501,500	--	--	Oliver	4	19,665	--	--
Chetwynd	3	22,000	--	--	One Hundred Mile House	16	616,751	--	--
Chase	2	220,150	--	--	Osoyoos	2	553,539	--	--
Clinton	4	1,221,183	--	--	Parksville	7	49,900	--	--
Cumberland	1	5,000	--	--	Pemberton	5	174,250	--	--
Fraser Lake	3	141,260	--	--	Port Edward	4	31,056	--	--
Fort Nelson	26	376,782	3	--	Port McNeill	4	12,000	--	--
Fort St. James	2	309,500	--	--	Port Alice	9	302,050	--	--
Fruitvale	1	53,850	--	--	Princeton	10	186,048	--	--
Granisle	5	7,400	--	--	Qualicum Beach	2	1,389	--	--
Gibsons	8	39,000	--	--	Sayward	1	1,000	--	--
Invermere	1	2,300,000	--	--	Sechelt	1	45,000	--	--
Kaslo	1	6,000	--	--	Slocan	4	9,100	--	--
Keremeos	4	15,470	--	--	Telkwa	6	24,958	--	--
Lake Cowichan	5	1,022,200	--	--	Tofino	3	132,000	3	--
Lillooet	6	4,840	--	--	Taylor	2	12,829	--	--
Logan Lake	9	10	--	--	Ucluelet	2	858	--	--
Lumby	9	1,035,050	--	1	Valemount	1	10,000	--	--
Lytton	2	378,212	--	--	Vanderhoof	14	267,250	1	--
Masset	10	52,430	1	2	Warfield	4	140,320	--	--
McBride	4	36,200	--	--	Zeballos	2	21,000	--	--
Montrose	1	35,000	--	--					

FIRE LOSSES AND CASUALTIES BY MONTH, 1980

Month	Incidents	$ Loss	Injured	Dead
January	718	8,936,434	37	13
February	560	9,258,506	25	7
March	629	6,027,935	25	11
April	683	13,001,483	22	9
May	657	14,207,896	31	12
June	628	6,993,048	28	2
July	610	10,924,213	30	4
August	571	5,064,311	18	2
September	553	6,322,231	25	2
October	653	6,290,534	20	9
November	607	9,378,346	19	1
December	734	12,259,239	28	5
TOTALS	7,605	108,664,176	308	77

FIRE LOSS STATISTICS FOR ALL FIRES, 1980

ACT OR OMISSION	Incidents	$ Loss	Injured	Dead
Incidendiary or "Set" Fires				
Criminal Offence	257	5,516,702	11	2
Incendiarism, Suspected Incendiarism, No Charges Laid	635	8,736,745	15	1
Mischief, Vandalism: Charges Laid	22	77,250	1	--
Mischief, Vandalism: No Charges Laid	504	993,939	2	--
Arson or Other Fires - Unclassified or Unknown	175	4,614,424	6	1
Misuse of Source of Ignition				
Disposal of Smokers' Material	362	3,653,382	29	18
Thawing	28	1,458,314	--	--
Inadequate Control of "Open" Fire	75	605,229	1	--
Child Playing With	153	1,982,490	11	3
Welding or Cutting Too Close	61	1,032,060	4	--
Torch Too Close	39	224,537	7	--
Misuse of Source of Ignition Unclassified	179	1,167,534	13	--
Misuse of Material Ignited				
Fuel Spilled Accidentally	55	620,324	9	--
Improper Fuelling Technique	13	103,777	6	2
Flammable Liquid to Kindle Fire	12	47,043	5	1
Cleaning, Washing Parts	9	97,318	2	--
Improper Container, Metal	2	950	--	--
Improper Container, Plastic	7	31,551	--	--
Combustible Placed Too Close To Heat	156	7,339,522	10	--
Improper Storage	39	307,386	1	--
Misuse of Material Ignited Unclassified	113	868,521	17	--
ectrical Failure				
Part Fa[illegible] reak	603	2,818,818	8	5
Automatic o[illegible]ure	80	802,324	4	--
Manual Cor Fa[illegible]	5	51,060	1	--
Electrical [illegible]ort Circuit	566	5,536,565	8	--
Lack of Maintenance	107	1,358,336	3	6
Part Worn Out	28	122,414	--	--
Mechanical or Electrical Failure Unclassified	601	3,701,316	12	1
Construction, Design Or Installation Deficiency				
Design Deficiency	35	397,431	--	--
Construction Deficiency	47	432,242	--	--
Installed Too Close to Combustible	102	987,374	3	3
Other Installation Deficiency	21	117,300	--	--
Overfusing	5	126,664	--	--
Construction Design or Installation Deficiency Unclassified	46	779,795	1	--
Misuse of Equipment				
Misuse of Equipment Unclassified	85	3,101,588	4	--
Human Failing				
Asleep	70	584,449	21	8
Temporary Loss of Judment	26	151,340	3	--
Physical Disability	4	2,800	1	1
Accident (Personal)	57	652,948	7	--
Influence of Alcohol	76	666,678	13	7
Influence of Drugs	9	22,901	--	--
Human Failing Unclassified	472	4,271,201	42	13
Vehicle Accident				
Automobile	74	405,110	1	--
Industrial Truck	9	346,300	--	--
Other Road Vehicle	7	23,900	2	--
Rail Vehicle	3	351,025	--	--
Watercraft	5	4,980,000	--	--
Aircraft	1	16,000	--	--
Vehicle Accident Unclassified	18	156,398	1	--
Miscellaneous Act or Omission				
Miscellaneous Act or Omission Unclassified	922	27,491,687	19	5

	Incidents	$ Loss	Injured	Dead
FORM OF HEAT				
Unknown or Not Applicable Heat	2,217	42,245,212	48	12
Spark: Ember	283	5,120,262	10	2
Spark: Electrical	1,175	8,656,115	30	3
Spark: Static Electrical	32	274,733	2	--
Direct Flame	1,575	24,155,676	73	17
Friction Heat	59	526,773	2	--
Hot Object, Direct Heat by Conduction or Radiation	1,310	18,836,279	56	11
Spontaneous Ignition	97	1,206,346	3	--
Heat From Smokers' Material	629	5,634,267	81	30
Form of Heat Unclassified	228	2,008,513	3	2
FIRE SERVICE				
Unknown or Not Applicable Fire Service	2,069	14,301,198	31	--
Full Time Fire Department	2,357	25,489,704	155	24
Volunteer Fire Department	1,211	25,814,867	34	23
Combinec Full Time and Volunteer Fire Dept.	1,534	28,775,085	83	16
Police Acting as Full Time Firefighters	3	166,600	--	--
Combined Police and Fire Department	41	273,475	--	--
Combined Police and Volunteer Firefighters	19	3,062,400	--	--
Fire Service - Contract to Others	7	108,500	--	--
No Fire Service	321	9,873,807	5	14
Fire Service Unclassified	43	798,540	--	--
FUEL OR ENERGY				
Unknown or Not Applicable Fuel	1,845	37,617,842	41	12
Coal, Wood	1,382	15,794,910	21	8
Fuel Oil	176	8,846,805	7	10
Gasoline	1,144	4,405,395	33	--
Natural Gas	93	1,543,075	15	--
Propane	229	13,342,741	19	2
Smokers' Material	704	5,688,312	86	34
Electricity	1,404	12,057,156	59	6
Lightning	5	18,200	--	--
LEVEL OF ORIGIN OR FIRE				
Unknown or Not Applicable Level	3,530	27,125,296	47	--
Basement, Sub-Basement	475	9,754,047	31	7
Crawl Space, Under Structure	58	1,203,965	2	--
Ground Floor, Grade Level	2,512	52,838,521	149	57
2nd Storey	494	7,394,064	41	6
3rd Storey	101	1,432,263	13	3
4th to 12th Storey, Inclusive	69	906,200	11	2
Over 12 Storeys	11	121,000	5	--
Roof Level	152	1,790,866	4	--
Level of Origin Unclassified	203	6,097,054	5	2
MATERIAL FIRST IGNITED				
Structural Components, Finish Materials	561	7,206,590	2	--
Roof Covering: Wood	48	620,157	4	--
Roof Covering: Other Than Wood	7	5,103	--	--
Exterior Wall Covering, Surface, Finish	36	648,452	--	--
Exterior Trim & Appurtenance	11	13,880	--	--
Floor Covering: Wood	18	147,150	1	--
Floor Covering: Linoleum, Tile, Plastic	8	38,612	--	--
Floor Covering: Carpet, Rug	81	499,647	4	2
Structural Component: Floor, Ceiling, Roof	69	1,382,861	4	1
Structural Component: Wall	67	1,086,951	--	--
Interior Wall Covering: Wood, Fibreboard (High Density)	90	1,246,007	1	3
Interior Wall Covering: Fibreboard (Low Density)	21	247,765	--	--
Interior Wall Covering: Plastic	4	78,500	--	--
Ceiling Covering: Wood, Fibreboard (High Density)	21	202,232	--	--
Ceiling Covering: Fibreboard (Low Density)	13	100,850	1	--
Ceiling Covering: Plastic	1	300	--	--
Insulation: Wood, Wood Product	6	125,018	--	--
Insulation: Plastic	11	11,575	--	--
Insulation: Mineral	32	367,705	3	--
Structural Components, Finish Materials Unclassified or Unknown	291	14,585,489	4	--

MATERIAL FIRST IGNITED (con't)	Incidents	$ Loss	Injured	Dead
Furniture (Upholstered)	339	3,196,943	40	19
Furniture: Wood (Not Upholstered)	39	824,739	1	--
Furniture: Plastic (Not Upholstered)	3	1,700	--	--
Ironing Board	1	32,000	--	--
Mattress	111	701,439	8	4
Bedding	280	1,984,762	34	11
Drapery	46	256,314	3	--
Broom, Mop, Brush	7	6,870	--	--
Furniture, Furnishings Unclassified or Unknown	63	3,079,888	8	6
Clothing: Cotton, on a Person	2	375	1	--
Clothing: Wool, on a Person	1	2,000	--	1
Clothing: Synthetic Fibre, on a Person	2	1,293	--	--
Fabric: Cotton	62	336,944	4	--
Fabric: Wool	4	12,550	--	--
Fabric: Synthetic Fibre	50	455,874	--	--
Fur	13	15,321	--	--
Tarpaulin	8	11,180	--	--
Clothing, Textiles Unclassified or Unkown	120	1,504,071	4	3
Wood, Paper Products	2	52,000	--	--
Wood	33	484,489	2	1
Wood Shavings	62	1,100,295	2	--
Paper, Packing Material	27	140,620	--	1
Paper Decoration	5	22,200	--	--
Wastepaper	65	171,731	1	--
Cardboard	69	6,393,856	2	--
Paper Stock	277	2,288,857	3	--
Wood, Paper Products Unclassified or Unknown	369	5,346,542	5	4
Gasoline	920	3,105,559	37	--
Fuel Oil	62	1,533,485	1	2
Flammable Liquid Flashpoint 100 F and Over	50	713,849	2	--
Flammable Liquid Flashpoint Less than 100 F	29	337,599	10	1
Paint, Varnish	17	141,525	1	--
Cooking Oil, Fat	275	1,806,081	38	1
Tar, Asphalt	6	115,800	--	--
Polish, Wax	1	300	--	--
Flammable Liquids Unclassified or Unknown	292	5,049,817	8	2
Natural Gas	5	44,700	--	--
Propane Air Mixture	1	2,000	--	--
Propane	65	964,023	8	--
Acetylene	9	54,050	1	--
Hydrogen	1	4,000	--	--
Flammable Gases Unclassified or Unknown	107	3,018,834	7	--
Starch, Flour	1	50	--	--
Plastics	55	685,745	5	--
Rubber, Natural or Synthetic	41	311,719	1	--
Chemicals Unclassified or Unknown	19	123,784	4	--
Fibres	18	95,114	--	--
Grain	7	27,925	--	--
Hay	15	146,490	--	--
Tree, Shrub	13	7,942	--	--
Felled Timber	1	--	--	--
Grass, Brush, Leaves	89	341,393	2	--
Fertilizer, Manure	2	7,250	--	--
Christmas Tree	8	5,000	--	--
Agricultural, Forestry Products Unclassified or Unknown	22	1,254,835	--	--
Coal, Coke	5	9,042	--	--
Insulation: Electric	497	2,024,417	2	--
Garbage, Trash, Rubbish	263	1,121,146	4	1
Oily Rags	10	44,617	6	--
Artificial Tree	1	2,114	--	--
Miscellaneous Material Unclassified or Unknown	1,242	28,524,274	35	8

AREA OF ORIGIN	Incidents	$ Loss	Injured	Dead
Area of Origin Unknown	622	7,482,246	4	--
Hallway, Corridor	57	1,534,801	1	--
Stairway, Exterior	13	48,560	--	--
Stairway, Interior	23	276,911	--	--
Lobby, Entrance Way	40	177,750	--	--
Elevator	10	329,377	--	--
Means of Egress Unclassified or Unknown	43	1,848,750	--	--
Large Assembly Area: Fixed Seats	4	650,500	--	--
Large Assembly Area: Non-Fixed Seats	2	315,700	--	--
Small Assembly Area	24	5,873,803	7	--
Lounge, Living Room	518	6,632,449	59	27
Sales, Show Room Area	11	80,248	--	--
Library, Museum	2	218,111	--	--
Sports Facility	2	164,500	--	2
Covered Court, Atrium, Mall, Concourse	1	99,100	--	--
Assembly Area Unclassified	7	304,586	--	--
Sleeping (Under 5 Occupants)	519	5,257,160	52	19
Sleeping (5 or More Occupants)	15	456,455	3	1
Dining Area	31	407,647	7	1
Bar, Beverage Area	12	488,685	--	--
Washroom, Locker Room	94	647,380	6	--
Office	52	3,210,620	4	--
Laboratory	9	661,125	2	--
Display Windows	1	16,000	--	--
Printing and Photographic Reproduction	2	33,710	--	--
Electronic Equipment Communication Room	11	12,497	--	--
Kitchen, Cooking Area	676	5,767,027	51	11
Laundry Area	88	510,144	9	--
Operating Room	2	6,100	1	--
Electronic Equipment Room	10	149,078	--	--
Performance Area	3	2,800	--	--
Backstage, Dressing Room	1	--	--	--
Process, Manufacturing Area	17	1,521,500	2	--
Function Area Unclassified or Unknown	227	7,248,064	4	4
Product Storage Area	14	532,710	4	1
Closet	34	592,434	4	1
Supplies, Equipment Area	61	1,767,242	3	--
Records Storage Area	6	258,850	1	--
Shipping, Receiving Area	10	21,588	--	--
Trash, Rubbish Area	8	20,263	--	--
Vehicle (Garage)	159	1,511,002	1	2
Agricultural Products Storage	19	977,000	--	--
Storage Area Unclassified or Unknown	248	6,796,120	14	2
Dumbwaiter, Conveyor Shaft	3	25,500	--	--
Service Shaft	2	45,100	--	--
Chute	8	2,600	--	--
Duct: Heating, Air Conditioning	1	1,000	--	--
Duct: Cooking	5	57,209	--	--
Duct: Laboratory Fume Exhaust	5	11,850	--	--
Chimney, Flue Pipe, Gas Vent	127	1,706,002	1	--
Service Facilities Unclassified or Unknown	34	4,063,721	--	--
Machinery Room	38	7,563,748	4	--
Heating Equipment Room	139	2,376,633	3	2
Transformer Vault	6	16,325	--	--
Incinerator Room	5	12,500	--	--
Maintenance Shop	62	3,583,012	4	--
Paint Shop	1	90,000	--	--
Service & Equipment Area Unclassified or Unknown	61	1,124,586	--	--
Structural Area	1	500	--	--
Crawl Space	29	655,663	4	1
Exterior Balcony	10	16,240	--	--
Ceiling and Floor Assembly	22	116,750	--	--
Ceiling and Roof Assembly	44	405,239	1	--
Wall Assembly	40	600,656	3	--
Exterior Wall	74	251,186	3	--
Exterior Roof	67	438,720	5	1
Awning, Canopy	10	3,930	--	--
Structural Area Unclassified or Unknown	133	6,084,687	3	1

	Incident	$ Loss	Injured	Dead
AREA OF ORIGIN (con't)				
Vehicle Area	2	6,695	--	--
Vehicle: Engine Area	1,062	3,113,505	8	--
Vehicle: Fuel Area	202	412,661	9	--
Vehicle: Control Area	52	394,766	--	--
Vehicle: Passenger Area	383	842,369	8	--
Vehicle: Cargo Area	49	261,504	1	--
Vehicle Area Unclassified or Unknown	520	4,523,965	5	--
Outside Area	8	141,516	--	--
Open Area	75	759,720	1	1
Court, Patio, Terrace	4	5,706	--	--
Parking Area	21	45,420	--	--
Storage Area	5	22,142	--	--
Trash, Rubbish Area	230	73,680	--	--
Outside Area Unclassified or Unknown	357	3,896,577	6	--
PROPERTY CLASSIFICATION				
Property Unknown	523	6,812,273	--	--
Assembly				
Motion Picture Theatre	1	--	--	--
Radio, TV Studio	2	55,200	--	--
Bowling Alley	1	2,000	--	--
Ice Rink	1	100	--	--
Amusement Centre	8	45,850	--	--
Swimming Bath	2	500	--	--
Ballroom, Gymnasium	6	170,550	--	--
Arena, Stadium	2	150	--	--
Elementary School	33	1,719,430	--	--
Junior High, Intermediate School	23	547,873	--	--
Senior High School	22	5,904,220	1	--
Industrial Trade School Technical School	3	3,700	--	--
College, University	2	3,300	--	--
School, College, University Unclassified or Unknown	8	70,275	1	--
Church, Chapel	9	965,550	--	--
Church Hall	2	600	--	--
Court Room	3	1,700	--	--
City Club	6	391,800	2	--
Country Club	5	1,411,200	--	--
Library	1	100	--	--
Museum	1	506,425	--	--
Art Gallery	1	18,111	--	--
Restaurant	56	1,875,045	5	--
Night Club	6	696,350	--	--
Tavern	3	42,319	--	--
Lunchroom, Drive-In	16	112,360	1	--
Marine Passenger Terminal	1	150,000	--	--
Miscellaneous Assembly Unclassified or Unknown	9	29,200	2	--
Institutional				
Prison, Penitentiary for Men	1	100	--	--
Prison, Penitentiary for Women	3	240	--	--
Adult Detention Camp	3	1,950	--	--
Vocational Rehabilitation Centre	2	12,200	--	--
Police Station	3	712	--	--
Home for the Aged With Nursing Staff	11	8,335	1	--
Home for the Aged Without Nursing	4	56,800	--	--
Children's Home, Orphanage	1	700	--	--
Children's Day Centre	1	28,000	--	--
Hospital	27	149,977	4	--
Sanatorium, Sanitarium, Nursing or Convalescent Home	2	95,000	--	--
Mental Hospital	2	890	1	--
Miscellaneous Institutional Unclassified or Unknown	9	8,920	1	--

PROPERTY CLASSIFICATION (con't)	Incident	$ Loss	Injured	Dead
Residential				
Dwelling, Year-Round Use (1-Family)	1,970	26,548,053	102	48
Dwelling, Seasonal Use - In Season (1-Family)	15	112,575	--	--
Dwelling, Seasonal Use - Off Season (1-Family)	9	202,400	--	--
Dwelling, Year-Round Use (2-Family)	12	116,804	--	--
Dwelling, Seasonal Use - In Season (2-Family)	2	100,000	--	--
Dwelling, Seasonal Use - Off Season (2-Family)	102	911,977	7	1
One and Two Family Residence, Duplex Unclassified or Unknown	4	63,900	3	--
Apartment, Tenement, Flat	3	42,000	1	--
1- or 2-Units With Business	7	243,800	1	1
3 to 20 Units With Business	34	470,004	2	1
3 to 20 Units Without Business	187	1,285,335	23	4
Over 20 Units With or Without Business	280	2,478,294	29	5
Apartments, Tenement, Flat Unclassified or Unknown	3	10,048	--	--
4 to 8 Roomers or Boarders	15	226,898	1	--
9 to 15 Roomers or Boarders	1	50	--	--
Hotel, Inn, Lodge	1	750	1	--
Year-Round Use	122	5,971,103	15	1
Seasonal Use - In Season	1	11,760	1	--
Seasonal Use - Off Season	3	155,100	--	--
Hotel, Inn, Lodge Unclassified or Unknown	1	700	--	--
Fewer Than 3 Units	10	89,000	1	--
3 - 20 Units	22	398,834	10	3
Over 20 Units	11	54,657	4	--
School, College, University Dormitory	3	1,300	--	--
Fraternity, Sorority, Social Club	1	102,500	1	--
Bunkhouse and Worker's Barrack	2	13,427	--	--
Mobile Home (1 or 2 Family Unit)	140	1,166,718	9	7
Travel Trailer	27	119,123	1	--
Camping Trailer	28	86,210	3	--
Motor Home	28	259,335	2	2
Mobile Camp	2	7,500	--	--
Houseboat	1	1,000	--	--
Residential Property Unclassified	15	31,205	--	--
Business and Personal Service				
General Business Office	30	631,951	2	--
Civic, Federal or Provincial Government Office	5	22,464	--	--
Bank	2	1,000	--	--
Medical, Health, Research or Scientific Office	2	178,575	--	--
Barber or Hairdressing Establishment	4	2,400	--	--
Beauty Parlour	2	250	--	--
Electronic Equipment Unclassified or Unknown	1	1,400	--	--
Miscellaneous Office Unclassified or Unknown	10	1,833,050	--	--
Mercantile				
Supermarket	3	425	--	--
Market, Grocery Store	12	134,018	--	--
Specialty Food Store	6	66,750	--	--
Liquor, Beverage Store	3	1,150	--	--
Clothing Store	6	9,884		
Clothing Accessories, Shoe Store	4	151,000	2	--
Shoe Repair Shop	2	74,478	--	--
Tailor, Dressmaking Shop	1	500	--	--
Dry Goods Store	6	37,030	--	--
Furniture Store	16	3,003,432	--	--
Appliance Store	3	35,200	--	--
Hardware Store	2	228,000	--	--
Music Store	1	2,500	--	--
Wallpaper, Paint Store	1	50	--	--
Rug, Floor Covering Store	1	166,000	1	--
Book, Stationery Store	3	84,750	--	--
Newsstand, Tobacco Shop	1	4,700	--	--
Drug Store	1	3,000	--	--
Jewelery Store	2	2,200	--	--
Gift Shop	1	2,000	--	--
Leather Goods Shop	1	75,000	--	--
Florist Shop	11	37,193	--	--
Optical Goods Sales	1	3,000	--	--
Sporting Goods Sales, Bicycle Sales and Repairs	6	361,863	--	--
Photographic Supply Sales and Studios	1	33,700	--	--
Garden Supply Store	1	16,000	--	--
Pet Store, Animal Hospital	8	33,150	--	--
Furniture Repair or Upholstery Without Sales	3	4,550	1	--
Laundry, Self-Service	6	60,900	2	--

	Incident	$ Loss	Injured	Dead
PROPERTY CLASSIFICATION (con't)				
Mercantile (con't)				
Maintenance Shop, General	1	400	2	--
Service Station: Public	12	213,800	--	--
Service Station: Private	1	3,500	--	--
Motor Vehicle Repairs	28	409,350	2	--
Motor Vehicle and Trailer Sales	10	319,283	1	--
Motor Vehicle Accessory Sales	2	2,150	--	--
Boat Sales	1	9,000	--	--
Motor Vehicles, Boats, Sales and Service Unclassified or Unknown	1	200	--	--
Department Store	2	40,550	--	--
Variety Store - Small	2	240	--	--
Variety Store - Large	1	20	--	--
Mail Order Store	1	350	--	--
Professional Supply Sales	1	500	--	--
Trade Supply Sales	2	300	--	--
Builders Supply Sales	2	310,000	2	1
Miscellaneous Mercantile Unclassified or Unknown	29	2,067,429	2	--
Industrial Manufacturing				
Basic Industrial Chemicals	2	200,000	2	--
Plastic Products	2	1,200	--	--
Petroleum Refineries	6	369,940	1	--
Asphalt, Coal Products	4	15,900	--	--
Sawmill, Planing Mill	66	4,374,438	1	--
Wood Cane Container and Small Wares	1	110	--	--
Wood Products, Furniture, Fixtures	5	227,500	--	--
Upholstered Furniture, Bedding	5	12,020	--	--
Paper, Pulp, Paperboard	6	224,020	--	--
Paper, Pulp, Paperboard Products	1	--	--	--
Newspaper, Magazine, Printing and Publishing	2	400,000	--	--
Printing, Publishing	2	24,500	--	--
Basic Iron and Steel	4	67,555	--	--
Basic Metal Products	9	139,810	2	--
Machinery	20	636,910	--	--
Electrical Equipment	1	15,000	--	--
Electrical and Electronic Appliances	3	48,775	--	--
Slaughtering, Preparation, Preserving of Meat	2	1,795	--	--
Bakery Product Manufacturing	4	81,950	1	--
Distilling, Rectifying, Blending Spirits	1	100	--	--
Breweries	1	80,000	--	--
Vegetable and Animal Oil, Fat, Soap Making	1	2,000	--	--
Mixed, Blended and Other Fibres, Spinning and Weaving	3	99,392	--	--
Wearing Apparel Manufacturing	1	285	--	--
Rubber, Rubber Products Manufacturing	1	175,000	--	--
Shipbuilding and Repairing of Vessels Over 65 Feet	3	2,900	--	--
Boat Building and Repairing of Vessels 65 Feet and Under	8	952,200	2	--
Motor Vehicle Manufacturing and Assembly	9	21,626	--	--
Vehicles and Related Equipment Unclassified or Unknown	2	17,500	--	--
Laundry and Dry Cleaning	6	241,210	--	--
Miscellaneous Manufacturing Unclassified or Unknown	19	277,550	--	--
Industrial Storage Properties				
Seeds, Beans, Nuts, Grain Storage in Bulk	3	757,900	--	--
Boxed, Crated or Packaged Agricultural Products Storage	1	1,200	--	--
Loose or Bagged Agricultural Products Storage	2	85,293	--	--
Livestock Storage	52	493,363	--	--
Agricultural Supply Storage	15	691,838	--	--
Cloth and Yarns	1	250	--	--
Loose or Bagged Processed Foods	3	176,500	--	--
Cold Storage	1	10,000	--	--
Flammable Liquid Tanks	4	7,075	2	--
Lumberyards, Building Materials	4	15,000	--	--
Wood Products	1	--	--	--
Furniture	3	55,100	--	--
Fibre Products	2	20,517	--	--
Rolled Paper, Newsprint	11	3,270	--	--
Paper and Paper Products	1	300	--	--

	Incidents	$ Loss	Injured	Dead
PROPERTY CLASSIFICATION (con't)				
Industrial Storage Properties (con't)				
Felled Timber, Log Storage	4	135,000	--	--
Pulpwood Pile, Cordwood	1	500	--	--
Rubber, Rubber Products	1	1,000	--	--
Hardware	1	1,000	--	--
Machinery	1	400	--	--
Electrical Appliances and Supplies	1	100	--	--
Scrap and Junkyards	3	10,050	--	--
Vehicles	1	2,500	--	--
Garage: Individual Residential Parking	129	600,250	--	--
Garage: General Auto Parking	5	10,500	--	--
Heavy Machine and Equipment	7	363,874	--	--
Marinas, Boat and Ship Storage	11	106,042	5	--
Railway Storage	1	5,000	--	--
General Warehouse	44	2,272,110	--	--
Bagged Cement, Lime, Gypsum or Other Mineral Materials, Clay Products	1	15,000	--	--
Freight Terminal	7	155,119	--	--
General Item Storage Unclassified or Unknown	31	698,107	2	--
Outdoor Property, Vehicles				
Brush, Grass and Light Ground Cover	25	11,225	--	--
Dumps	1	--	--	--
Trees	10	5,895	--	--
Fences, Poles	10	2,732	--	--
Trash and Rubbish	249	71,301	--	--
Mailboxes	2	150	--	--
Forest, Standing Timber	1	--	--	--
Outdoor Property Unclassified or Unknown	20	26,912	--	--
Bridge, Trestle, Overpass, Elevated Road and Railway	4	141,000	--	--
Pier and Wharf	2	4,500,100	--	--
Pier, Wharf Unclassified or Unknown	1	650	--	--
Buildings Under Construction	9	257,582	--	--
Buildings Under Demolition	3	2,000	--	--
Construction, Other Than Buildings	2	5,000	--	--
Vacant Property	34	548,960	--	--
Unoccupied Property	1	15,000	--	--
Motor Craft (65 Feet and Under)	22	597,442	1	--
Non Self-Propelled Vessel	2	35,000	1	--
Commercial Fishing Vessel	34	1,415,300	6	--
Watercraft Unclassified or Unknown	16	60,700	--	--
Railway Car; Passenger, Diner	3	33,000	--	--
Railway Car; Passenger Sleeper	2	48,000	--	--
Railway Car; Freight	6	355,750	--	--
Locomotive, Engine, and Other Power Unit	2	180,000	--	--
Roadbed Maintenance Equipment	2	6,000	--	--
Railway Yard	1	3,900	--	--
Automobile	1,527	2,507,842	11	--
Bus, Trackless Trolley	10	47,675	--	--
Truck, Flammable Liquid, Chemical Tank	7	430,396	--	--
Truck, General	507	1,874,985	8	--
Motorcycle	28	33,150	3	--
Wagon, Non-Motorized Hauling Vehicle	7	9,125	--	--
Industrial or Commercial Trailer	13	284,170	--	--
Personal Business and Utility Aircraft Under 12,500 lbs. Gross Weight	2	51,000	1	--
Commercial Transport Aircraft Turbine, Fixed Wing	1	225,000	--	--
Construction Equipment	38	1,359,196	--	--
Farm Tractor and Equipment	15	161,350	--	--
Industrial Truck: Fork Lift and Material Handling	50	1,489,142	--	--
Special Vehicle Unclassified or Unknown	2	3,100	--	--
Miscellaneous Special Unclassified or Unknown	34	43,186	1	--
Miscellaneous				
Laboratory: Chemical, Biological and Medical	5	660,200	1	--
Laboratory: General Research	2	48,200	--	--
Poultry, Egg Production	6	58,474	--	--
Storage Barn	2	3,900	--	--
Animal Barn, Cattle, Pigs, Horses	3	179,000	--	--
Crops, Orchards	11	55,220	--	--
Fruit, Vegetable Packing	1	200,000	2	--
Farm Facility Unclassified or Unknown	1	1,000	--	--

	Incidents	$ Loss	Injured	Dead
PROPERTY CLASSIFICATION (con't)				
Miscellaneous (con't)				
Shed	52	127,068	--	--
Privy	1	350	--	--
Awning, Canopy	2	200	--	--
Shelter: Storm and Weather	4	22,575	--	--
Conveyor	1	1,500	--	--
Miscellaneous Outbuildings Unclassified or Unknown	1	3,000	--	--
Electric Light and Power Generating Plant	2	2,500	--	--
Electric Light & Power Distribution System	4	13,000	--	--
Gas Manufacturing Plant	1	100	1	--
Heating Plant	1	5,000	1	--
Water Supply System	7	433,500	--	--
Sanitary Service	1	300	--	--
Flammable Liquid Distribution System, Pipeline	1	2,000	--	--
Structural Clay Products Manufacturing	1	2,729	--	--
Glass Manufacturing	2	1,100	--	--
Cement Manufacturing	1	1,000	--	--
Cement Batch Mixing Plant	1	25,000	--	--
Metal Ore Mine	3	170,000	--	--
Non-Metallic Mineral Mine, Quarry	1	1,000	--	--
Fire, Police Communication Centre	1	--	--	--
Telephone Exchange	2	350	--	--
Communications Unclassified or Unknown	2	510	--	--
Property in Which Radioactive Material is Handled in Bulk	1	--	--	--
Miscellaneous Unclassified or Unknown	64	601,365	3	--
SOURCE OF IGNITION				
Source of Ignition Unknown	557	7,305,728	1	--
Central Heating Unit	83	7,252,878	3	2
Service Water Heater	35	445,379	9	--
Space Heater: Stationary	110	832,719	2	3
Space Heater: Portable	31	713,804	1	--
Fireplace	121	834,447	3	1
Chimney, Gas Vent	78	1,039,290	5	--
Flue Pipe, Vent Connector	14	194,975	--	--
Steam, Hot Water Pipe	7	87,700	--	--
Heating Equipment Unclassified or Unknown	154	5,725,343	2	--
Stove, Range	377	2,238,255	35	11
Oven	18	20,898	1	
Food Warming Appliance: Portable	13	[illegible],707	--	--
Deep Fat Fryer	33	353,094	3	--
Cooking Unit: Portable	29	189,898	4	1
Open Fired Broiler: Fixed Type	5	96,350	--	--
Open Fired Broiler: Portable Type	18	25,715	--	--
Cooking Equipment Unclassified or Unknown	87	654,173	5	3
Cigarette	465	3,039,677	58	21
Cigar	1	1,500	--	--
Smoker's Material Unclassified or Unknown	242	2,434,916	35	19
Electric Wiring, Cable: Permanent	394	3,049,366	4	--
Transformer	2	880	--	--
Switchgear	2	79,500	3	--
Panelboard, Switchboard	14	75,670	--	--
Switch, Outlet	42	525,495	--	--
Electric Wiring, Cable: Temporary	57	509,357	5	--
Signal, Telephone Equipment	2	25,700	--	--
Battery, Rectifier	56	113,283	1	--
Electrical Distribution Equipment Unclassified or Unknown	202	1,931,722	4	2
Television, Radio	34	322,415	1	--
Motor: 1 HP and Over	17	1,051,592	--	--
Motor: Under 1 HP	18	23,453	3	--
Electronic Equipment: Communications	4	4,062	--	--
Electric Blanket	17	136,201	--	2
Incandescent Lamp	48	266,359	2	--
Fluorescent Lamp	4	8,250	--	--
Electronic Appliances & Equipment: Unclassified or Unknown	165	2,832,960	4	--
Dryer	39	131,845	3	--
Air Conditioning and Refrigeration Equipment: Central	3	9,850	--	--
Pressing Iron	7	144,025	--	--
Internal Combustion Engine	749	2,390,893	9	--
Tar Pot, Kettle	1	250,000	--	--
Incinerator	5	5,220	--	--
Air Conditioning Unit: Local	2	9,000	--	--
Regrigeration Unit: Local	9	47,084	--	--
Other Appliances and Equipment Unclassified or Unknown	35	297,245	--	--

	Incidents	$ Loss	Injured	Dead
SOURCE OF IGNITION (con't)				
Match	282	2,561,413	19	--
Lighter	54	596,773	--	--
Lamp	7	132,075	3	1
Candle, Taper	31	313,938	3	--
Cutting Torch	37	1,834,408	3	--
Welding Equipment	62	1,078,681	4	--
Torch: Other Than Cutting, Welding	38	398,030	7	--
Hot Ashes, Embers	54	693,505	1	--
"Open" Flames Unclassified or Unknown	643	8,727,706	9	--
Structure: Attached	12	4,563,498	--	--
Structure: Detached	34	156,611	--	--
Lumber Yard	2	13,000	--	--
Outside Storage Container, Tank	3	800	--	--
"Open" Fire	41	833,556	--	1
Forest	2	129,000	--	--
Grass, Brush	26	175,480	--	--
Exposure Unclassified or Unknown	99	3,614,614	2	--
Heat Treatment Equipment	6	98,600	--	--
Industrial Oven	8	72,550	--	--
Explosive	4	2,800	1	--
Fireworks	10	116,735	--	--
Bearing, Belting, Conveyor, Brake	26	959,759	--	--
Machinery, Equipment: Commercial and Industrial	16	423,750	1	--
Chemical Reaction	13	106,350	3	--
Miscellaneous Source Unclassified or Unknown	1,689	33,299,671	46	10
SPRINKLER PROTECTION				
Unknown or Not Applicable Sprinkler Protection	5,460	48,990,631	150	21
Complete Sprinkler Protection - Supervised or Standard Watchman	48	1,948,858	4	--
Complete Sprinkler Protection - Alarm to Fire Department	14	375,017	--	--
Complete Sprinkler Protection - Unsupervised, Local Alarms Only	102	449,969	10	--
Partial Sprinkler Protection - Supervised or Standard Watchman	15	19,825	2	--
Partial Sprinkler Protection - Alarm to Fire Department	32	225,760	2	--
Partial Sprinkler Protection - Unsupervised, Local Alarms Only	141	4,253,901	18	2
Sprinkler Protection - Insufficient Information to Classify	14	72,202	1	--
No Sprinkler Protection	1,738	51,735,718	119	54
Sprinkler Protection Unclassified	41	592,295	2	--
TIME OF FIRE				
Time 0000 - 0059 Hours	339	5,144,175	18	1
Time 0100 - 0159 Hours	323	13,199,276	15	10
Time 0200 - 0259 Hours	278	9,126,803	16	1
Time 0300 - 0359 Hours	276	6,039,721	4	11
Time 0400 - 0459 Hours	235	9,395,203	24	11
Time 0500 - 0559 Hours	187	3,406,983	11	5
Time 0600 - 0659 Hours	146	3,979,587	9	5
Time 0700 - 0759 Hours	346	2,822,839	5	--
Time 0800 - 0859 Hours	362	3,240,685	13	3
Time 0900 - 0959 Hours	255	3,178,315	5	2
Time 1000 - 1059 Hours	294	5,087,333	10	1
Time 1100 - 1159 Hours	314	4,397,324	10	--
Time 1200 - 1259 Hours	323	3,007,781	9	2
Time 1300 - 1359 Hours	352	2,265,561	24	1
Time 1400 - 1459 Hours	334	2,879,339	13	1
Time 1500 - 1559 Hours	369	3,121,464	13	1
Time 1600 - 1659 Hours	393	3,004,670	24	1
Time 1700 - 1759 Hours	447	3,218,999	9	--
Time 1800 - 1859 Hours	312	3,138,759	9	1
Time 1900 - 1959 Hours	405	4,934,582	18	3
Time 2000 - 2059 Hours	368	3,338,692	15	4
Time 2100 - 2159 Hours	321	4,704,966	11	3
Time 2200 - 2259 Hours	297	2,791,067	7	6
Time 2300 - 2359 Hours	289	2,496,527	16	4

DAY OF FIRE	Incidents	$ Loss	Injured	Dead
Sunday	1,056	12,689,405	35	13
Monday	1,002	19,266,390	36	15
Tuesday	1,074	20,024,245	47	8
Wednesday	1,036	13,163,931	41	10
Thursday	1,029	12,528,057	45	8
Friday	1,105	18,292,525	45	12
Saturday	1,303	12,699,623	59	11

CIRCUMSTANCES CONTRIBUTING TO FIRE CASUALTIES, 1980

Condition of Casualty	Incidents	Injured	Dead	$ Loss
Condition of Casualty Unknown or Not Applicable	101	111	16	$3,358,235
Asleep at Time of Fire	71	62	40	1,746,754
Bedridden or Other Physical, Mental Handicap	7	4	3	77,031
Impairment by Alcohol	20	17	9	276,355
Impairment by Drugs	2	2	--	500
Under Restraint or Detention	1	1	--	50
Too Young to Act	6	3	6	272,075
Condition of Casualty - Unclassified	93	108	3	2,218,980
Action of Casualty				
Action of Casualty Unknown or Not Applicable	67	57	37	1,549,079
Injured While Attempting to Escape	46	49	8	1,233,559
Over Exertion or Heart Attack	4	2	2	347,050
Voluntarily Entered or Remained for Rescue Purpose	16	18	1	253,855
Voluntarily Entered or Remained for Fire Fighting	68	82	--	3,251,489
Voluntarily Entered or Remained to Save Personal Property	17	17	2	186,595
Loss of Judgement or Panic	20	11	10	265,075
Received Delayed Warning	8	6	3	231,030
Action of Casualty - Unclassified	69	66	14	1,220,048
Ignition of Fabric				
Ignition of Fabric Unknown or Not Applicable	194	227	45	6,317,370
Outer Clothing	49	43	12	737,237
Sleepwear	8	7	2	85,580
Underclothing	1	--	1	2,000
Bedding and Bed Linen	18	14	5	167,749
Mattress or Pillow	4	2	2	11,830
Upholstered Furniture	12	9	6	259,630
Ignition of Clothing or Fabrics - Unclassified	9	6	4	115,299
Type of Fabric Ignited				
Type of Fabric Unknown or Not Applicable	215	240	56	6,613,597
Cotton	26	23	5	345,070
Wool	1	1	--	100
Rayon (Viscose)	3	2	1	13,760
Other Synthetic Fibre	26	25	5	360,049
Mixture Fibres	15	11	7	167,529
Plastic Foam	1	1	--	50
Type of Fabric or Material Ignited - Unclassified	6	5	3	123,190
Cause of Failure to Escape				
Cause of Failure Unknown or Not Applicable	176	211	19	5,294,180
Trapped by: Rapid Spread of Fire/ Smoke Through Vertical Openings	17	10	12	541,481
Trapped by: Rapid Spread of Fire/ Smoke Through Horizontal Openings	17	6	14	833,030
High Flame Spread of Combustible Finish of Walls, Ceilings or Floors	8	--	9	199,365
Falling Debris	3	4	--	196,500
Explosion	20	24	1	205,127
Exit Blocked or Obstructed by Fire	11	10	7	210,837
Outdoor Fire Includes Forest, Brush	2	3	--	600
Cause of Failure to Escape - Unclassified	48	40	15	609,395

SUMMARY OF FIRE LOSSES BY PROPERTY CLASSIFICATIONS, 1980

Property Group	No. of Fires	Percent of Total Fires	$ Loss	Percent of Total $ Loss	Injured	Percent of Total Injured	Dead	Percent of Total Dead
Assembly -								
Educational	91	1.2	8,248,798	7.5	2	--	--	--
Nightclubs, taverns	9	.1	738,669	.6	--	--	--	--
Restaurants, eating establishments	72	1.0	1,987,405	1.8	6	1.9	--	--
Others	61	.8	3,659,036	3.3	2	--	2	2.6
Institutional -								
Home for aged	15	.1	65,135	--	1	--	--	--
Hospital day centre, home	33	.4	274,567	.2	5	1.6	--	--
Others	21	.2	24,122	--	1	--	--	--
Residential -								
One- and two-family dwellings	2,114	28.1	28,055,709	25.8	112	36.4	49	63.6
Apartments	511	6.8	4,487,481	4.1	56	18.2	11	14.3
Hotels, motels, rooming houses	187	2.4	6,908,852	6.3	33	1.1	4	5.2
Dormitory, bunkhouse	6	--	117,227	.1	1	--	--	--
Mobile home, mobile camp	142	1.8	1,174,218	1.0	9	2.9	7	9.1
Recreation vehicle	83	1.1	464,668	.4	6	1.9	2	2.6
Others	16	.2	32,205	--	--	--	--	--
Business and personal service	56	.7	2,671,090	2.4	2	--	--	--
Mercantile	210	2.7	8,010,495	7.3	14	4.5	2	2.6
Industrial manufacturing	200	2.6	8,711,186	8.1	9	2.9	--	--
Industrial storage	354	4.7	6,714,158	6.1	9	2.9	--	--
Outdoor property, piers, wharves	325	4.3	4,759,965	4.3	--	--	--	--
Watercraft	74	1.0	2,108,442	1.9	8	2.6	--	--
Rail transport and equipment	16	.2	626,650	.5	--	--	--	--
Automobile	1,527	20.3	2,507,842	2.3	11	3.6	--	--
Other ground transport & special vehicles	677	9.0	5,692,289	5.2	11	3.6	--	--
Aircraft	3	--	276,000	.2	1	--	--	--
Remainder	802	10.6	10,347,967	10.5	9	2.9	--	--
TOTALS	7,605		108,664,176		308		77	

FIRE LOSSES OF $500,000 AND OVER, 1980

Incident No.	Municipality	Property Classification	Act or Omission	$ Loss
CCR801226031	Cranbrook	Furniture Store	Misc. Act or Omission Unclassified	2,225,000
CDA80111911	Dawson Creek	Seeds, Beans, Nuts, Grain Storage in Bulk	Lack of Maintenance	757,000
CJ080052603	Fort St. John	Hotel	Incendiarism; Suspected; No Charges Laid	1,600,000
CJ0800609022	Fort St. John	Elementary School	Incendiarism; Suspected; No Charges Laid	1,200,000
CPC800217071	Port Coquitlam	Country Club	Misc. Act or Omission Unclassified	1,375,000
CPC800411191	Port Coquitlam	Boat Bldg. & Repairing; Vessels 65 Feet and Under	Electrical Short Circuit	500,000
CVA800101221	Vancouver	Apartment Building	Disposal of Smokers' Material	759,753
CVA800602021	Vancouver	Church, Chapel	Electrical Short Circuit	500,000
CVA800909122	Vancouver	General Warehouse	Misc. Act or Omission Unclassified	1,691,500
CVI80071101	Victoria	Misc. Office - Unclassified or Unknown	Misc. Act or Omission Unclassified	1,409,100
CVI800711100	Victoria	Property Unknown	Act or Omission Unknown	694,578
CVI80072811	Victoria	Museum	Part Failure, Leak, Break	506,425
DKI800512052	Kitimat	Pier, Wharf	Watercraft	4,500,000
DMR80071122	Maple Ridge	Misc. Mercantile - Unclassified or Unknown	Arson or Other Fires - Unclassified or Unknown	589,500
DSY800529131	Surrey	Agricultural Supply Storage	Human Failing - Unclassified	600,000
FKC80041002	Kootenay County	Dwelling, Year-Round (1-Family)	Thawing	1,300,000
FPC80060507	Pr. Rupert County	Junior High, Intermediate School	Criminal Offence	500,000
FUA800215071	U.B.C. Area	Laboratory: Chemical, Biological and Medical	Misc. Act or Omission Unclassified	650,000
TCR80042902	Creston	Senior High School	Combustible Placed Too Close to Heat	5,600,000
VCL80073004	Clinton	Hotel	Misc. Act or Omission - Unclassified	1,210,00
VIN80111920	Invermere	Hotel	Misuse of Equip. - Unclassified	2,300,000
VLC80051605	Lake Cowichan	Sawmill, Planing Mill	Arson or Other Fires - Unclassified or Unknown	1,000,000
VLU80121911	Lumby	Sawmill, Planing Mill	Misc. Act or Omission - Unclassified	1,000,000
VOS80072103	Osoyoos	Supermarket	Act or Omission Unknown	517,539
24				32,985,395

10-YEAR PROPERTY FIRE LOSS COMPARISON, 1971 - 1980

	1971	1972	1973	1974	1975	1976	1977	1978	1979	1980
(1) Number of fires	7,454	8,120	7,613	7,526	7,782	7,433	7,523	7,441	7,655	7,605
(2) Loss	$34,716,758	$37,389,116	$45,693,116	$62,842,182	$66,461,246	$77,566,724	$78,746,492	$81,596,417	$105,900,046	$108,664,176
(3) Loss per fire (2) ÷ (1)	4,657	4,605	6,002	8,350	8,540	10,432	10,467	10,966	13,834	14,289
(4) Population (thousands)*	2,784.6	2,241.4	2,302.4	2,375.7	2,433.2	2,466.6	2,497.6	2,555.8	2,566.9	2,636
(5) Number of fires per 1,000 persons (1) ÷ (4)	3.41	3.62	3.31	3.17	3.20	3.01	3.01	2.91	2.98	2.88
(6) Per capita loss (2) ÷ (4)	$15.89	$16.68	$19.85	$26.45	$27.31	$31.45	$31.53	$31.92	$41.25	$41.22
(7) CPI adjustment factor +	1.000	1.053	1.129	1.261	1.401	1.537	1.647	1.774	1.91	2.09
(8) Loss adjusted by CPI (2) ÷ (7)	$34,716,758	$35,507,232	$40,472,201	$49,835,195	$47,438,433	$50,466,313	$47,812,077	$45,995,725	$55,445,026	$51,992,425
(9) Loss per fire adjusted by CPI (3) ÷ (7)	$4,657	$4,373	$5,316	$6,622	$6,096	$6,787	$6,355	$6,182	$7,243	$6,837
(10) Per capita loss adjusted by CPI (6) ÷ (7)	$15.89	$15.84	$17.58	$20.98	$19.49	$20.46	$19.14	$17.99	$21.60	$19.72
(11) Fire fatalities	153	100	116	129	129	110	94	98	125	77

* Population statistics were provided by Statistics Canada. The figures for 1971 and 1976 are actual census figures. The others are estimates by Statistics Canada.

\+ Adjustment Factor. In an effort to get a more realistic picture of losses over the years, some form of adjustment factor was necessary to take inflation into consideration. We chose the Consumer Price Index for Vancouver with 1971 = 1.000.

NUMBER OF FIRES, 1971 - 1980

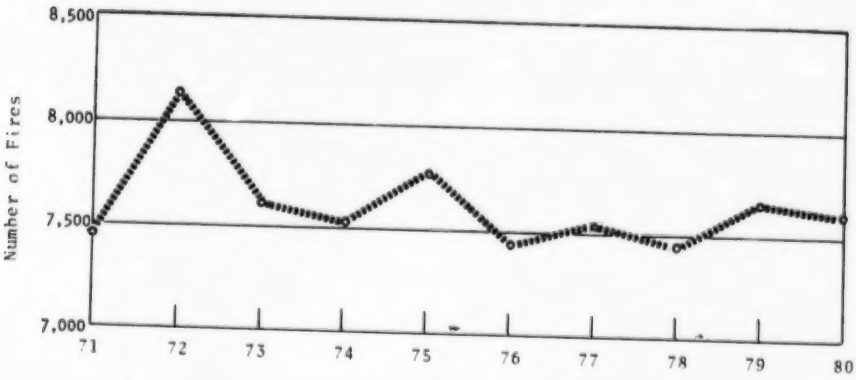

CHART 1

NUMBER OF FIRES PER 1,000 PERSONS, 1971 - 1980

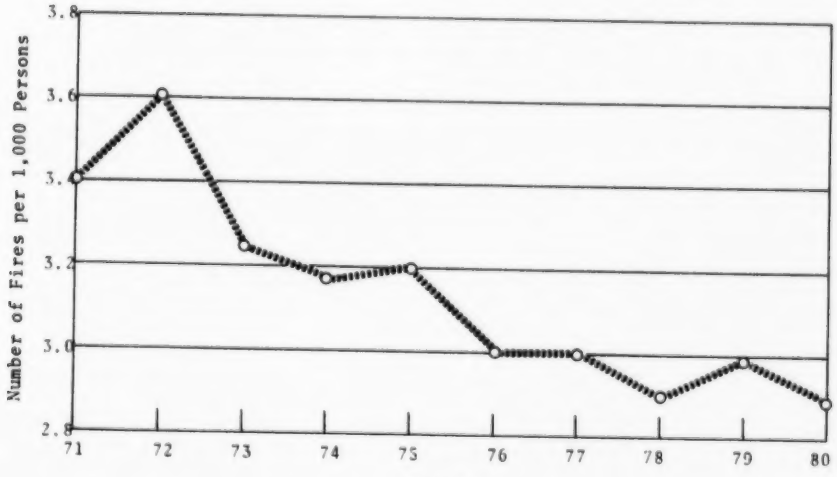

CHART 2

ANNUAL ACTUAL AND ADJUSTED FIRE LOSSES, 1971 - 1980

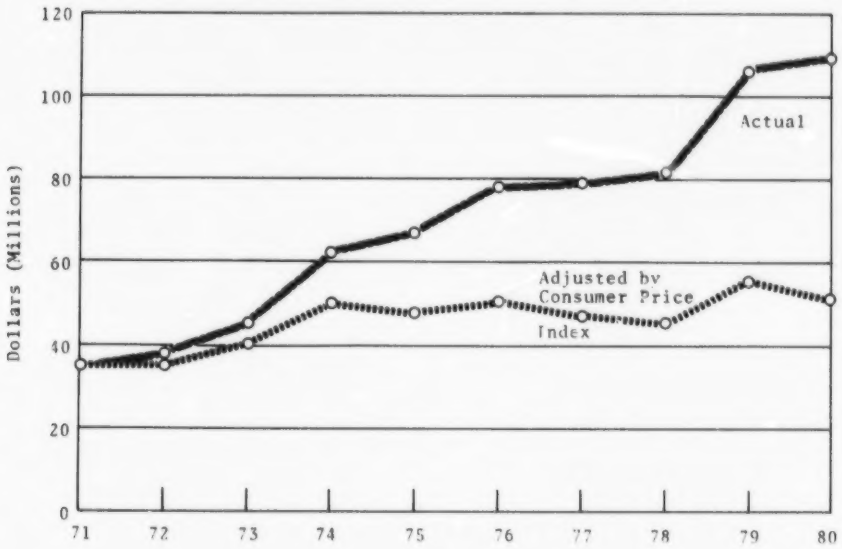

CHART 3

ACTUAL AND ADJUSTED AVERAGE LOSS PER FIRE, 1971 - 1980

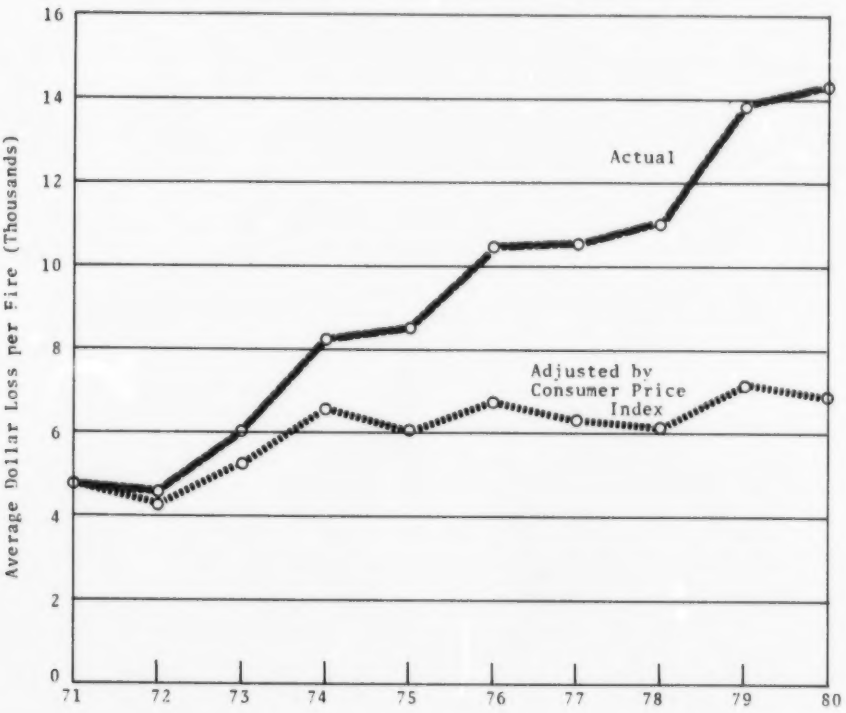

CHART 4

ACTUAL AND ADJUSTED ANNUAL PER CAPITA LOSSES, 1971 - 1980

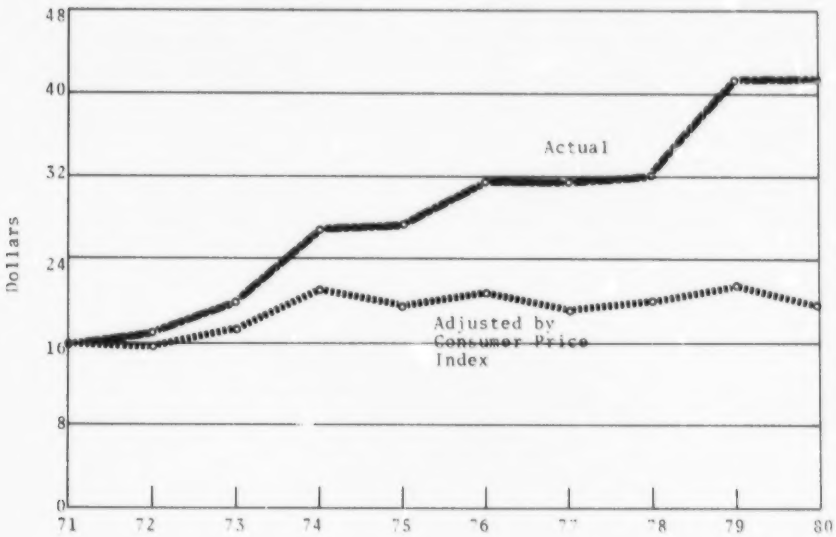

CHART 5

ANNUAL NUMBER OF FIRE FATALITIES, 1971 - 1980

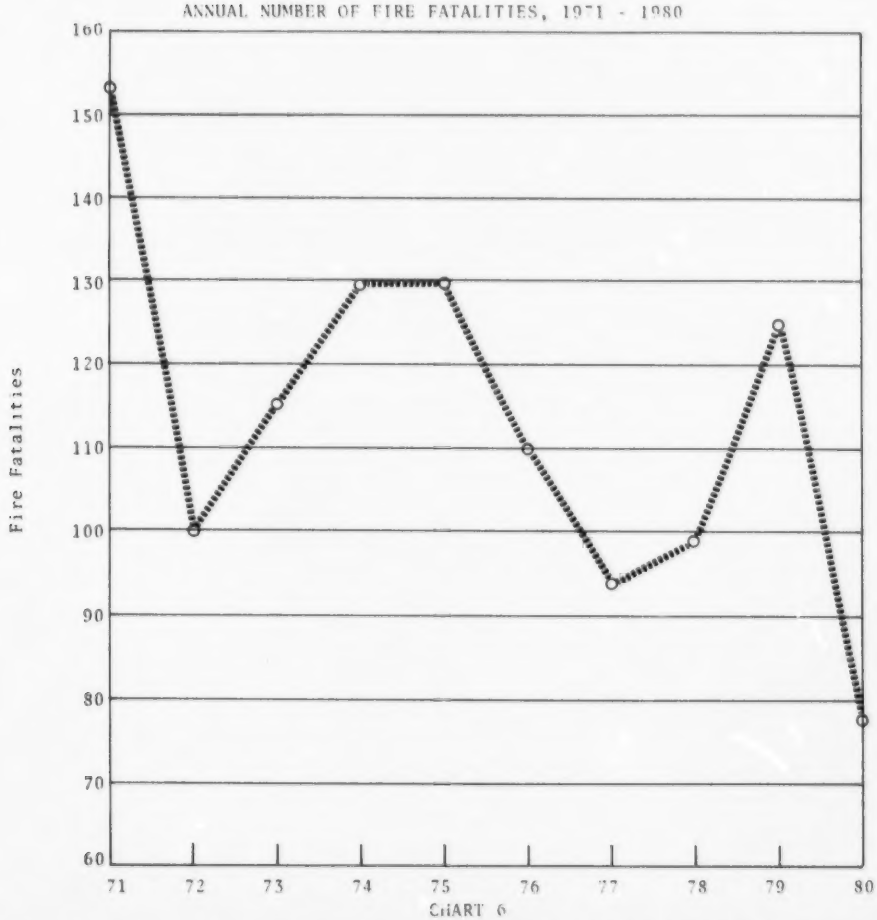

CHART 6

FIRE LOSSES IN BRITISH COLUMBIA IN 1981

Published by

Office of the Fire Commissioner

Province of British Columbia

Ministry of Attorney General

British Columbia Cataloguing in Publication Data

Main entry under title:
Fire losses in British Columbia in .... -- 1980-

Continues: British Columbia. Office of the Fire Commissioner. Annual report of the Fire Commissioner. ISSN 0226-1966
ISSN 0821-820X = Fire losses in British Columbia.

1. Fires - British Columbia - Statistics - Periodicals. I. British Columbia. Office of the Fire Commissioner.

TH9506.B7B74 363.37'0212

TABLE OF CONTENTS

Page

Summary of Fire Losses 2

Fire Losses by Municipalities and Fire Districts . 4

Fire Losses and Casualties by Month. 5

Fire Loss Statistics for All Fires:

- Act or Omission 6
- Form of Heat. 7
- Fire Service. 7
- Fuel or Energy. 7
- Level of Origin of Fire 7
- Material First Ignited. 7
- Area of Origin. 9
- Property Classification 10
- Source of Ignition. 14
- Sprinkler Protection. 15
- Time of Fire. 15
- Day of Week 15

Circumstances Contributing to Fire Casualties. . . 16

Summary of Fire Losses by Property Classifications 17

Fire Losses of $500,000 and Over 18

10-Year Fire Loss Comparison, 1972 - 1981. 19

Charts, 1972 - 1981:

- 1 - Number of Fires 20
- 2 - Number of Fires per 1,000 Persons . . . 20
- 3 - Annual Actual and Adjusted Fire Losses. 21
- 4 - Actual and Adjusted Average Loss per Fire 21
- 5 - Actual and Adjusted Annual Per Capita Losses. 22
- 6 - Annual Number of Fire Fatalities. . . . 22

Province of British Columbia

Ministry of Attorney General

Office of the
Fire Commissioner
2780 East Broadway
Vancouver
British Columbia
V5M 1Y8
Phone: 251-3131

FIRE LOSSES IN 1981

Seventy-six persons died and 244 were injured as a result of 7,023 fires in 1981, causing a total dollar loss of $115,709,786. In 1980, 7,605 fires resulted in a loss of $108.7 million and 77 persons dead.

The average loss per fire for the province in 1981 was $16,521. and the per capita loss was $42.26. There was an average of 2.56 fires for every 1,000 persons in British Columbia.

Fire Fatalities

Forty-three men, 22 women and 11 children lost their lives as a result of fire:

- 42 of these resulted from careless smoking and impairment by liquor contributed significantly to many of them.
- 2 persons were killed as a result of arson.
- 40 persons who died from fire were asleep at the time of the fire - this accounts for 53 percent of the fatalities.

Residential Fires

27 percent of fires were in one and two family dwellings, resulting in a total loss of $28.1 million. A further 6.7 percent of the fires were in apartment buildings with a loss of nearly $9.4 million.

These two residential categories accounted for 33.7 percent of the total number of fires and 32.4 percent of the total 1981 fire losses in the province.

Sixty-eight of the 76 fire fatalities, or 89 percent, occurred in residential fires.

Educational Institutions

There were 84 fires in educational institutions in 1981, resulting in a loss of almost $1.9 million. Fire losses in educational institutions have been decreasing steadily in the last three years.

Year	Number	$ Loss (Million)
1981	84	1.9
1980	91	8.2
1979	125	9.3

Automobile Fires

There were 1,554 automobile fires in British Columbia in 1981. These fires accounted for 22 percent of the number of fires in 1981, causing a loss of about $2.6 million.

Arson

1,515 fires out of the total 7,023 (21.6%) fires in 1981 were deliberately set, causing a loss of $40.7 million. This loss includes $10 million estimated for the fire at the Matsqui prison. In 1980, 1,593, or 21%, of total fires were 'set' and caused a loss of $19.9 million.

Large Loss Fires

There were 27 fires in which the individual losses exceeded $500,000 each. Although they accounted for only 0.4 percent of the total fires, they were responsible for losses of $36.5 million, constituting 32 percent of the province's annual dollar losses. About one-half of the fires in this large loss category were 'set' fires.

Time

	% Fires	% Dollar Loss	% Fatalities
midnight - 8 a.m.	29	48	72
8 a.m. - 4 p.m.	34	25	16
4 p.m. - midnight	37	27	12

Although the fewest fires occurred from midnight to 8 a.m., fires occurring during this period caused the most harm in terms of dollar losses and fire fatalities.

Gordon R. Anderson
Fire Commissioner

FIRE LOSSES IN MUNICIPALITIES AND FIRE DISTRICTS, 1981

	Incidents	$ Loss	Injured	Dead		Incidents	$ Loss	Injured	Dead
CITIES									
Armstrong	7	499,830	--	--	Nelson	32	226,373	--	--
Burnaby	292	3,361,715	15	1	North Vancouver City	87	567,096	4	1
Castlegar	15	37,158	--	--	New Westminster	125	1,454,847	--	2
Courtenay	35	42,658	5	--	Port Alberni	79	427,483	4	4
Cranbrook	20	1,135,920	--	--	Port Coquitlam	49	746,069	1	--
Dawson Creek	28	208,591	3	1	Penticton	98	454,768	6	--
Duncan	16	519,804	1	1	Prince George	261	8,076,534	5	1
Enderby	6	108,302	--	--	Port Moody	31	183,711	4	--
Fernie	25	89,757	--	--	Prince Rupert	4	108,730	--	--
Grand Forks	4	443,295	--	2	Revelstoke	14	128,650	--	--
Greenwood	1	2,500	--	--	Rossland	9	686,146	--	--
Fort St. John	54	1,207,045	1	--	Trail	11	96,108	--	--
Kamloops	169	1,646,981	11	1	Vancouver	1,209	12,242,140	42	18
Kelowna	73	3,967,949	--	1	Vernon	61	1,123,595	--	--
Kimberley	18	134,978	3	--	Victoria	222	2,714,666	10	2
Langley	97	1,795,189	17	--	White Rock	22	86,534	--	--
Nanaimo	160	1,681,027	6	3					
DISTRICTS									
Abbotsford-Sumas	59	468,819	5	--	North Saanich	14	768,976	--	--
Campbell River	8	89,766	--	--	North Vancouver	160	1,643,187	10	2
Central Saanich	8	18,500	--	--	Oak Bay	24	34,575	1	--
Chilliwack	70	778,664	--	1	Peachland	5	1,150	--	--
Coldstream	12	1,142,115	1	2	Port Hardy	12	28,502	--	--
Coquitlam	143	1,872,836	2	3	Pitt Meadows	18	584,329	--	--
Delta	136	932,523	7	2	Powell River	16	308,160	--	--
Esquimalt	23	196,852	1	--	Richmond	221	3,377,891	9	1
Houston	4	63,000	--	--	Saanich	111	502,149	1	--
Kent	1	300	--	--	Sparwood	17	446,503	1	--
Kitimat	46	395,965	3	--	Summerland	15	81,525	--	--
Langley	104	1,424,100	10	1	Salmon Arm	47	182,206	2	--
Mackenzie	16	140,650	--	--	Squamish	24	1,295,723	--	--
Mission	31	598,453	--	--	Surrey	322	4,010,237	7	2
Maple Ridge	77	1,473,316	4	--	Terrace	29	221,124	3	--
Matsqui	114	11,454,004	6	--	West Vancouver	72	1,491,653	5	--
North Cowichan	41	1,084,850	--	--	Whistler	13	134,350	--	--
FIRE PROTECTION DISTRICTS AND COUNTIES (Non-Municipal Areas)									
Cariboo	405	7,528,595	3	3	University of B.C./U.E.L.	36	60,813	1	--
Colwood	25	88,475	--	--	Vancouver	37	1,022,477	--	--
Kootenay	120	1,380,991	2	3	Victoria	53	553,641	--	--
Langford	21	208,346	2	--	View Royal	10	96,641	--	1
Nanaimo	144	3,100,495	4	2	Westminster	79	1,002,950	1	1
Prince Rupert	93	4,719,911	2	2	Yale	293	5,972,723	3	4
Sooke	16	191,106	--	1					
TOWNS									
Comox	16	67,700	--	--	Merritt	14	50,827	--	--
Creston	20	8,905	--	--	Quesnel	33	194,916	--	--
Golden	2	241,500	--	--	Sidney	9	55,262	--	--
Hope	2	24,684	--	--	Smithers	11	38,350	--	1
Ladysmith	24	713,788	--	--	Williams Lake	10	208,863	1	--

FIRE LOSSES IN MUNICIPALITIES AND FIRE DISTRICTS, 1981

	Incidents	$ Loss	Injured	Dead		Incidents	$ Loss	Injured	Dead
VILLAGES									
Alert Bay	1	15,000	--	--	McBride	2	72,500	--	--
Ashcroft	6	389,706	--	--	Montrose	2	8,235	--	--
Burns Lake	7	66,300	3	--	Nakusp	1	70,000	--	3
Cache Creek	4	3,094,000	--	--	One Hundred Mile House	7	18,205	--	--
Chetwynd	1	11,200	--	--	Osoyoos	2	60,500	--	--
Chase	1	40	--	--	Parksville	10	74,912	--	--
Cumberland	5	37,621	--	1	Pemberton	1	300	--	--
Fraser Lake	1	15,000	--	--	Port Alice	3	1,021,000	--	--
Fort Nelson	29	470,950	3	--	Port Edward	7	180,965	--	--
Fort St. James	2	40,636	--	--	Port McNeill	2	387,753	--	--
Granisle	2	20,750	--	--	Princeton	5	195,591	--	--
Gibsons	9	117,700	--	--	Qualicum Beach	3	85,100	--	--
Gold River	8	29,652	--	--	Sayward	13	227,600	--	--
Hazelton	1	50,000	--	--	Slocan	2	500	--	--
Harrison Hot Springs	1	40,000	--	--	Tahsis	1	12,000	--	--
Invermere	1	2,267	--	--	Telkwa	1	32,500	--	--
Kalso	4	4,001	--	--	Tofino	6	48,455	--	--
Lake Cowichan	8	78,190	--	--	Taylor	2	26,000	--	--
Lillooet	5	812,779	3	2	Ucluelet	2	4,688	--	--
Logan Lake	9	2,764	--	--	Valemount	8	175,142	--	--
Lumby	1	8,000	--	--	Vanderhoof	5	23,130	--	--
Masset	7	8,400	--	--	Warfield	3	12	--	--

FIRE LOSSES AND CASUALTIES BY MONTH, 1981

Month	No. Fires	$ Loss	No. Injured	No. Dead
January	630	7,315,643	17	6
February	558	8,678,532	19	6
March	577	8,105,424	14	5
April	573	7,645,960	31	5
May	663	8,670,389	29	8
June	515	18,141,035	24	1
July	590	9,874,503	18	5
August	670	9,046,912	12	3
September	590	8,055,794	22	8
October	578	10,077,390	20	6
November	570	11,439,561	21	9
December	509	8,658,643	17	14
TOTALS	7,023	115,709,786	244	76

FIRE LOSS STATISTICS FOR ALL FIRES, 1981

	Incidents	Injured	Dead	$ Loss
ACT OR OMISSION				
Incendiary or Set Fires				
Criminal Offence	227	8	2	10,194,448
Incendiarism, Suspected Incendiarism, No Charges Laid	717	5	--	12,926,387
Riot, Civil Commotion: Charges Laid	1	--	--	20,000
Riot, Civil Commotion, No Charges Laid	1	--	--	10,000,000
Mischief, Vandalism: Charges Laid	28	1	--	226,763
Mischief, Vandalism: No Charges Laid	358	1	--	1,243,696
Arson or Other Fires - Unclassified or Unknown	183	6	--	6,056,488
Misuse of Source of Ignition				
Disposal of Smokers' Material	344	16	15	5,598,677
Thawing	4	--	--	105,500
Inadequate Control of "Open" Fire	59	3	--	555,843
Child Playing With	137	14	2	1,702,742
Welding or Cutting Too Close	51	1	--	2,333,598
Torch Too Close	31	3	1	325,449
Misuse of Source of Ignition Unclassified	187	8	1	2,539,572
Misuse of Material Ignited				
Fuel Spilled Accidentally	53	5	--	386,701
Improper Fuelling Technique	11	1	--	18,296
Flammable Liquid to Kindle Fire	8	--	--	107,552
Cleaning, Washing Parts	6	2	--	21,950
Improper Container, Metal	3	--	--	15,500
Improper Container, Plastic	6	--	--	112,711
Combustible Placed Too Close To Heat	139	11	--	1,538,853
Improper Storage	31	1	--	393,083
Misuse of Material Ignited Unclassified	107	11	--	1,651,297
Mechanical & Electrical Failure				
Part Failure, Leak, Break	580	6	--	5,635,021
Automatic Control Failure	60	2	--	699,487
Manual Control Failure	4	--	--	125,500
Electrical Short Circuit	537	13	3	5,191,426
Lack of Maintenance	126	3	--	677,699
Part Worn Out	26	1	--	170,525
Mechanical or Electrical Failure Unclassified	547	6	--	4,142,082
Construction, Design or Installation Deficiency				
Design Deficiency	20	--	--	393,405
Construction Deficiency	53	--	--	462,066
Installed Too Close To Combustible	104	2	1	1,606,251
Other Installation Deficiency	32	4	--	173,605
Overfusing	2	--	--	114,350
Suspected Faulty Connections Involving Copper Wiring	1	--	--	13,000
Construction Design or Installation Deficiency Unclassified	57	6	1	1,085,680
Misuse of Equipment				
Misuse of Equipment Unclassified	61	3	1	450,384
Human Failing				
Asleep	77	11	11	762,069
Temporary Loss of Judgment	21	3	--	47,994
Accident (Personal)	46	6	5	377,960
Influence of Alcohol	54	14	6	455,176
Influence of Drugs	11	--	1	76,180
Human Failing Unclassified	395	26	13	3,871,492
Vehicle Accident				
Automobile	71	--	--	255,009
Industrial Truck	9	2	--	303,200
Other Road Vehicle	12	--	--	89,417
Rail Vehicle	1	--	--	400
Watercraft	2	1	--	30,200
Aircraft	1	3	--	300,000
Vehicle Accident Unclassified	29	1	--	147,150
Miscellaneous Act or Omission				
Miscellaneous Act or Omission Unclassified	882	27	9	25,890,544

	Incidents	Injured	Dead	$ Loss
FORM OF HEAT				
Unknown or Not Applicable Heat	1,876	42	14	41,597,917
Spark: Ember	196	1	5	4,977,595
Spark: Electrical	1,095	20	4	8,788,502
Spark: Static Electrical	36	3	--	509,338
Direct Flame	1,624	71	7	35,064,380
Friction Heat	68	2	--	628,909
Hot Object, Direct Heat by Conduction or Radiation	1,282	52	4	11,444,492
Spontaneous Ignition	73	3	1	1,778,934
Heat from Smokers' Material	559	46	40	7,472,814
Form of Heat Unclassified	212	4	1	2,930,105
FIRE SERVICE				
Unknown or Not Applicable Fire Service	1,877	32	3	10,288,826
Full Time Fire Department	2,208	96	31	28,891,645
Volunteer Fire Department	1,066	33	20	25,888,672
Combined Full Time and Volunteer Fire Dept.	1,538	77	15	38,917,892
Police Acting as Full Time Fire Fighters	2	--	--	15,071
Combined Police and Fire Department	24	1	--	203,152
Combined Police and Volunteer Fire Fighters	5	--	--	120,500
Fire Service - Contract to Others	10	--	--	252,800
No Fire Service	267	5	7	10,670,269
Fire Service Unclassified	24	--	--	744,159
FUEL OR ENERGY (Relating to Source of Ignition)				
Coal, Wood	1,340	18	9	22,402,950
Fuel Oil	119	5	1	2,390,110
Gasoline	1,154	19	2	15,726,829
Natural Gas	101	11	--	4,513,938
Propane	166	27	1	3,559,518
Smokers' Material	614	46	42	8,682,651
Electricity	1,267	51	4	10,866,270
Lightning	13	--	--	64,801
Fuel or Energy Unclassified	571	21	6	11,979,357
Unknown or Not Applicable Fuel	1,676	46	11	35,806,562
LEVEL OF ORIGIN				
Unknown or Not Applicable Level	3,311	48	6	16,276,203
Basement, Sub-Basement	437	24	11	12,907,240
Crawl Space, Under Structure	47	--	--	1,064,358
Ground Floor, Grade Level	2,347	115	44	67,236,509
2nd Storey	445	28	11	9,336,138
3rd Storey	92	16	1	4,091,736
4th to 12th Storey, Inclusive	65	4	1	494,484
Over 12 Storeys	10	--	1	279,702
Roof Level	125	2	--	1,803,195
Level of Origin Unclassified	142	7	1	2,503,421
MATERIAL FIRST IGNITED				
Structural Components, Finish Materials	436	5	4	4,640,760
Roof Covering: Wood	31	--	--	267,463
Roof Covering: Other Than Wood	12	--	--	80,350
Exterior Wall Covering, Surface, Finish	35	1	1	435,189
Exterior Trim & Appurtenance	13	1	--	99,876
Floor Covering: Wood	17	--	--	630,672
Floor Covering: Linoleum, Tile, Plastic	12	--	--	58,204
Floor Covering: Carpet, Rug	58	2	--	403,662
Structural Component: Floor, Ceiling, Roof	67	1	1	1,283,874
Structural Component: Wall	53	--	--	753,903
Interior Wall Covering: Wood, Fibreboard (High Density)	119	2	1	2,323,010
Interior Wall Covering: Fibreboard (Low Density)	8	--	--	108,965
Interior Wall Covering: Plastic	2	--	--	4,105
Ceiling Covering: Wood, Fibreboard (High Density)	14	1	1	783,790
Ceiling Covering: Fibreboard (Low Density)	7	--	--	201,000
Ceiling Covering: Plastic	2	--	--	77,150
Insulation: Wood, Wood Product	4	--	--	7,300
Insulation: Plastic	12	1	1	190,625
Insulation: Mineral	28	1	--	169,879
Structural Components, Finish Materials Unclassified or Unknown	247	3	4	7,824,060

	Incidents	Injured	Dead	$ Loss
MATERIAL FIRST IGNITED (con't)				
Furniture (Upholstered)	337	39	26	4,302,933
Furniture: Wood (Not Upholstered)	28	--	1	277,490
Furniture: Plastic (Not Upholstered)	2	--	--	31,500
Ironing Board	1	--	--	10,000
Mattress	110	3	--	728,612
Bedding	218	19	9	2,191,382
Drapery	39	2	--	318,403
Broom, Mop, Brush	9	2	--	22,886
Furniture, Furnishings Unclassified or Unknown	77	4	9	12,048,779
Clothing: Cotton, on a Person	1	--	--	150
Clothing: Synthetic Fibre, on a Person	2	3	--	12,050
Fabric: Cotton	40	3	--	728,017
Fabric: Synthetic Fibre	43	2	2	266,582
Fur	17	--	--	209,993
Tarpaulin	4	--	--	4,500
Clothing, Textile Unclassified or Unknown	102	4	2	1,929,755
Wood	20	--	--	407,088
Wood Shavings	55	--	--	1,736,107
Paper, Packing Material	16	1	--	120,750
Paper Decoration	1	--	--	3,000
Wastepaper	50	--	--	538,774
Cardboard	79	--	--	778,416
Paper Stock	306	2	--	3,005,319
Wood, Paper Products Unclassified or Unknown	360	8	3	9,253,928
Gasoline	891	15	1	4,298,899
Fuel Oil	51	5	--	1,036,006
Flammable Liquid: Flashpoint 100 F & Over	57	--	--	776,818
Flammable Liquid: Flashpoint Less Than 100 F	23	4	--	518,917
Paint, Varnish	11	--	--	45,600
Cooking Oil, Fat	262	26	--	2,031,856
Tar, Asphalt	12	1	--	85,501
Polish, Wax	6	--	--	605
Flammable Liquids Unclassified or Unknown	271	13	--	7,362,144
Flammable Gases	1	--	--	1,300
Natural Gas	8	1	--	276,315
Propane Air Mixture	2	--	--	118,500
Propane	53	11	--	627,862
Anaesthetic Gas	1	--	--	10
Acetylene	4	--	--	3,000
Hydrogen	1	--	--	100
Flammable Gases Unclassified or Unknown	79	10	1	880,734
Starch, Flour	1	--	--	2,500
Cellulose Nitrate	1	--	--	1,700
Plastics	72	1	--	635,071
Oxidizing Material	1	--	--	300
Rubber, Natural or Synthetic	30	--	--	306,478
Ammonium Nitrate	1	--	--	2,966
Chemicals Unclassified or Unknown	22	3	--	177,202
Fibres	17	--	--	61,410
Grain	10	--	--	29,950
Hay	11	--	--	86,480
Tree, Shrub	20	--	--	27,114
Felled Timber	1	--	--	1,000
Grass, Brush, Leaves	41	--	--	133,273
Fertilizer, Manure	1	--	--	30,000
Christmas Tree	21	--	--	71,742
Agricultural, Forestry Products Unclassified or Unknown	9	--	--	191,851
Coal, Coke	10	3	--	393,002
Insulation: Electric	434	8	--	2,831,532
Garbage, Trash, Rubbish	216	2	1	1,461,696
Oily Rags	14	--	--	54,068
Artificial Tree	1	--	--	1,500
Miscellaneous Material Unclassified or Unknown	1,260	31	8	32,175,733

	Incidents	Injured	Dead	$ Loss
AREA OF ORIGIN				
Area of Origin Unknown	522	9	1	4,217,545
Hallway, Corridor	45	4	--	1,373,582
Stairway, Exterior	9	--	--	6,905
Stairway, Interior	25	--	--	299,082
Lobby, Entrance Way	32	1	--	332,505
Elevator	3	--	--	24,485
Means of Egress Unclassified or Unknown	37	2	--	1,138,439
Large Assembly Area: Fixed Seats	5	--	--	40,660
Large Assembly Area: Non-fixed Seats	4	1	1	604,270
Small Assembly Area	24	2	1	2,070,521
Lounge, Living Room	492	45	35	8,280,762
Sales, Shown Room Area	14	4	--	1,427,525
Library, Museum	3	--	--	533,000
Sports Facility	2	--	--	1,100
Covered Court, Atrium, Mall, Concourse	1	--	--	100
Assembly Area, Unclassified	19	1	--	1,690,398
Sleeping (Under 5 Occupants)	455	34	18	6,186,129
Sleeping (5 or More Occupants)	12	--	1	650,330
Dining Area	33	--	--	10,958,542
Bar, Beverage Area	7	--	--	536,246
Washroom, Locker Room	84	--	1	2,584,652
Office	40	3	--	2,416,524
Laboratory	4	--	--	54,200
Display Windows	2	--	--	121,000
Printing and Photographic Reproduction	6	--	--	80,800
Electronic Equipment Communication Room	4	1	--	1,012,100
Kitchen, Cooking Area	613	54	3	5,201,511
Laundry Area	84	--	1	717,524
Operating Room	1	--	--	200,000
Electronic Equipment Room	14	--	--	462,255
Process, Manufacturing Area	28	6	--	2,153,765
Function Area Unclassified or Unknown	218	16	3	7,552,994
Product Storage Area	16	3	--	1,567,953
Closet	44	3	--	701,043
Supplies, Equipment Area	69	2	3	2,960,948
Records Storage Area	3	--	--	77,000
Shipping, Receiving Area	18	1	--	1,487,504
Trash, Rubbish Area	5	--	--	8,510
Vehicle (Garage)	160	1	--	1,863,802
Agricultural Products Storage	6	--	--	218,374
Storage Area Unclassified or Unknown	234	6	1	8,007,607
Dumbwaiter, Conveyor Shaft	6	1	--	116,001
Service Shaft	1	--	--	9,800
Chute	4	--	--	53,020
Pipe, Piping	1	--	--	10,000
Duct: Heating, Air Conditioning	7	--	1	53,700
Duct: Cooking	3	--	--	3,001,048
Duct: Laboratory Fume Exhaust	6	1	--	8,300
Chimney, Flue Pipe, Gas Vent	117	--	--	1,178,035
Service Facilities Unclassified or Unknown	32	--	--	1,114,785
Service and Equipment Area	1	--	--	600
Machinery Room	37	--	--	2,791,939
Heating Equipment Room	104	4	--	1,848,479
Transformer Vault	4	--	--	3,950
Incinerator Room	4	--	--	11,700
Maintenance Shop	40	1	--	1,112,301
Paint Shop	4	--	--	56,500
Service & Equipment Area Unclassified or Unknown	36	--	--	2,622,134
Crawl Space	27	--	--	867,050
Exterior Balcony	10	1	--	70,266
Ceiling and Floor Assembly	20	--	--	277,322
Ceiling and Roof Assembly	55	2	--	583,925
Wall Assembly	40	2	--	539,355
Exterior Wall	66	1	1	184,583
Exterior Roof	48	--	--	465,027
Awning, Canopy	6	--	--	6,425
Structural Area Unclassified or Unknown	107	--	1	8,040,977

	Incidents	Injured	Dead	$ Loss
AREA OF ORIGIN (con't)				
Vehicle: Engine Area	1,056	9	1	2,710,667
Vehicle: Fuel Area	200	2	1	570,390
Vehicle: Control Area	49	--	--	318,940
Vehicle: Passenger Area	364	4	--	1,127,482
Vehicle: Cargo Area	72	5	1	528,772
Vehicle Area Unclassified or Unknown	507	11	--	3,026,835
Open Area	72	--	--	580,130
Court, Patio, Terrace	3	--	--	9,700
Parking Area	21	--	--	32,689
Storage Area	8	--	--	13,650
Trash, Rubbish Area	209	1	--	77,212
Outside Area Unclassified or Unknown	276	--	--	2,127,105
PROPERTY CLASSIFICATION				
Property Unknown	405	5	--	2,825,767
Assembly				
Motion Picture Theatre	1	--	--	100
Amusement, Recreation Place	1	--	--	1
Bowling Alley	1	--	--	200
Billiard Centre	2	--	--	29,500
Amusement Centre	5	--	--	122,500
Swimming Bath	3	--	--	10,400
Ballroom, Gymnasium	6	--	--	692,944
Arena, Stadium	3	--	--	3,000
Amusement, Recreation Place Unclassified or Unknown	1	--	--	1,000
Elementary School	33	--	--	1,046,117
Junior High, Intermediate School	23	3	--	102,652
Senior High School	19	--	--	526,477
Industrial Trade School Technical School	2	--	--	700
College, University	4	--	--	13,700
School, Collge, University Unclassified or Unknown	3	--	--	182,000
Church, Chapel	11	--	--	1,729,519
Church Hall	4	--	--	104,535
City Club	10	--	--	470,520
Country Club	2	--	--	1,500
Museum	1	--	--	1,000
Restaurant	74	3	3	3,346,322
Night Club	2	--	--	950
Tavern	8	--	--	12,590
Lunchroom, Drive-In	10	--	1	53,096
Bus Terminal	1	--	--	112,844
Marine Passenger Terminal	3	1	--	558,001
Miscellaneous Assembly	1	--	--	20
Miscellaneous Assembly Unclassified or Unknown	17	--	--	680,560
Institutional				
Prison, Penitentiary for Men	3	--	--	10,008,100
Prison, Penitentiary for Women	1	--	--	10
Jail	2	--	--	100
Adult Detention Camp	2	--	--	3,001
Police Station	1	--	--	1,000
Home for the Aged with Nursing Staff	10	--	--	6,035
Home for the Aged without Nursing	1	--	--	505
Hospital	19	--	--	27,675
Sanatorium, Sanitarium, Nursing or Convalescent Home	1	--	--	160
Mental Hospital	1	--	--	433,000
Miscellaneous Institutional Unclassified or Unknown	5	--	--	3,725
Residential				
One and Two Family Residence, Duplex	1	--	--	60,000
Dwelling, Year-Round Use (1-Family)	1,763	86	38	26,299,050
Dwelling, Seasonal Use - In Season (1-Family)	16	1	2	181,865
Dwelling, Seasonal Use - Off Season (1-Family)	16	--	--	171,259

	Incidents	Injured	Dead	$ Loss
PROPERTY CLASSIFICATION (con't)				
Residential (con't)				
Dwelling, Year-Round Use (2-Family)	3	--	--	67,300
Dwelling, Seasonal Use - Off Season (2-Family)	96	5	5	1,311,822
One and Two Family Residence, Duplex Unclassified or Unknown	5	1	--	45,414
Apartment, Tenement, Flat	1	--	--	150
1- or 2-Units with Business	10	--	1	357,251
3 to 20 Units with Business	39	5	--	481,317
3 to 20 Units without Business	215	26	9	4,873,645
Over 20 Units with or without Business	212	22	2	3,681,865
Apartments, Tenement, Flat Unclassified or Unknown	1	--	--	5,500
4 to 8 Roomers or Boarders	13	2	1	272,837
9 to 15 Roomers or Boarders	1	--	--	150
Hotel, Inn, Lodge	3	--	--	1,770
Year-Round Use	89	6	2	1,399,450
Seasonal Use - In Season	1	--	--	50,000
Seasonal Use - Off Season	3	--	--	503,600
Transient Dormitory Type	2	2	1	300,000
Fewer than 3 Units	14	--	--	202,050
3 - 20 Units	18	3	2	96,979
Over 20 Units	12	--	1	60,350
School, College, University Dormitory	8	--	--	55,475
Fraternity, Sorority, Social Club	1	--	--	2,800
Bunkhouse and Worker's Barrack	10	--	--	237,200
Mobile Home (1 or 2 Family Unit)	119	2	4	1,604,347
Travel Trailer	21	3	--	73,716
Camping Trailer	24	1	--	90,250
Motor Home	24	--	--	248,799
Mobile Camp	1	--	--	1,000
Houseboat	2	--	--	16,500
Residential Property Unclassified	3	--	--	216,000
Business and Personal Service				
General Business Office	29	--	--	1,855,067
Civic, Federal or Provincial Government Office	9	--	--	712,600
Bank	1	--	--	886
Medical, Health, Research or Scientific Office	5	--	--	43,000
Beauty Parlour	3	--	--	8,953
Business and Personal Service Property Unclassified or Unknown	1	--	--	800
Miscellaneous Office Unclassified or Unknown	8	--	--	154,620
Mercantile				
Supermarket	4	--	--	22,500
Market, Grocery Store	12	--	--	139,905
Specialty Food Store	5	--	--	229,300
Delicatessen	3	--	--	751,700
Clothing Store	3	2	--	55,145
Clothing Accessories, Shoe Store	4	--	--	695,430
Tailor, Dressmaking Shop	1	--	--	100,000
Furniture Store	7	1	--	210,150
Appliance Store	3	--	--	1,650
Hardware Store	1	--	--	14,000
Wallpaper, Paint Store	1	--	--	5,000
Book, Stationery Store	1	--	--	1
Drug Store	3	--	--	425,002
Jewelry Store	1	--	--	9,476
Gift Shop	5	--	--	157,400
Florist Shop	11	--	--	31,016
Hobby, Toy Shop	1	--	--	50
Sporting Goods Sales, Bicycle Sales and Repairs	2	--	--	204,000
Photographic Supply Sales and Studios	1	--	--	47,500
Garden Supply Store	2	--	--	3,600
Pet Store, Animal Hospital	2	--	--	6,500
Furniture Repair or Upholstery without Sales	3	--	--	90,003
Appliance Repair Shop	1	--	--	200
Laundry, Self-Service	3	--	--	44,510
Service Station; Public	10	1	--	261,431
Service Station; Private	2	--	--	15,000
Motor Vehicle Repairs	23	--	1	448,234
Motor Vehicle and Trailer Sales	3	--	--	291,015
Motor Vehicle Accessory Sales	1	--	--	12,000
Motor Vehicles, Boats, Sales and Service Unclassified or Unknown	3	1	--	13,225

	Incidents	Injured	Dead	$ Loss
PROPERTY CLASSIFICATION (con't)				
Mercantile (con't)				
Department Store	5	--	--	3,016,474
Variety Store - Large	1	--	--	485,500
Trade Supply Sales	1	--	--	150
Builders Supply Sales	3	--	--	250
Miscellaneous Mercantile Unclassified or Unknown	25	--	--	3,374,013
Industrial Manufacturing Properties				
Hazardous Chemicals	1	--	--	130,000
Plastic	1	--	--	16,880
Paints, Varnishes, Lacquers, Inks, Waxes, Adhesives	1	--	--	11,512
Petroleum Refineries	2	2	--	13,000
Asphalt, Coal Products	2	--	--	12,000
Sawmill, Planing Mill	45	--	--	3,209,435
Wood Cane Container, and Small Wares	3	--	--	1,150
Wood Products, Furniture, Fixtures	13	--	--	273,638
Upholstered Furniture, Bedding	4	--	--	502,500
Paper, Pulp, Paperboard	4	--	--	97,000
Paper, Pulp, Paperboard Products	1	--	--	175
Printing, Publishing	4	--	--	23,151
Basic Iron and Steel	7	--	--	248,500
Basic Metal Products	13	--	--	93,824
Machinery	17	2	--	419,174
Electrical and Electronic Appliances	4	--	--	1,139,000
Slaughtering, Preparation, Preserving Meat	4	--	--	202,905
Canning, Preserving of Fruits and Vegetables	1	--	--	20,000
Grain Mill Products Manufacturing	4	--	--	5,050
Bakery Product Manufacturing	5	--	--	523,740
Mixed, Blended and Other Fibres; Spinning and Weaving	2	1	1	1,000,000
Wearing Apparel Manufacturing	3	--	--	196,150
Made-up Textile Good Manufacturing	1	--	--	40,000
Rubber, Rubber Products Manufacturing	2	--	--	5,750
Shipbuilding and Repairing of Vessels over 65 Feet	5	--	--	75,900
Boat Building and Repairing; Vessels 65 Feet and Under	9	--	--	166,300
Motor Vehicle Manufacturing and Assembly	8	--	--	33,650
Bicycle Manufacturing; Assembly and Repair	1	--	--	2,000
Aircraft and Rocket Manufacturing; Assembly and Repair	1	--	--	1,500
Vehicles and Related Equipment Unclassified or Unknown	1	--	--	2,000
Watch and Clock Manufacturing	1	--	--	500
Laundry and Dry Cleaning	4	--	--	251,820
Photographic Film Processing	1	--	--	5,000
Toy, Sporting Goods Manufacturing	1	--	--	3,000
Miscellaneous Manufacturing Unclassified or Unknown	20	--	--	356,824
Industrial Storage Properties				
Seeds, Beans, Nuts, Grain Storage in Bulk	3	--	--	260,050
Boxed, Crated or Packaged Agricultural Products Storage	1	--	--	15
Loose or Bagged Agricultural Products Storage	1	--	--	50,000
Livestock Storage	40	1	--	790,786
Agricultural Supply Storage	13	2	--	694,741
Loose or Bagged Processed Foods	2	--	--	4,000
Flammable Liquid Tanks	2	--	--	20,000
Packaged Petroleum Products	1	--	--	100
Lumberyards, Building Materials	9	4	--	1,484,350
Furniture	1	--	--	6,000
Paper and Paper Products	4	--	--	2,170
Felled Timber, Log Storage	2	--	--	170,500
Hardware	3	--	--	68,500
Machinery	2	--	--	160,000
Scrap and Junkyards	2	1	--	1,500
Vehicles	2	--	--	7,000
Garage: Individual Residential Parking	124	--	--	713,968
Garage, General Auto Parking	3	--	--	3,500
Bus, Truck and Auto Fleets	5	--	--	27,700
Heavy Machine and Equipment	7	--	--	183,100
Marinas, Boat and Shop Storage	17	5	1	1,122,000
Railway Storage	2	--	--	1,001
Fire Stations	1	--	--	37,000

	Incidents	Injured	Dead	$ Loss
PROPERTY CLASSIFICATION (con't)				
Industrial Storage Properties (con't)				
Vehicles Unclassified or Unknown	3	2	--	800
General Warehouse	42	2	--	1,295,335
Coal, Coke, Briquette and Charcoal	2	--	--	120,000
Freight Terminal	5	1	--	77,850
Ice Storage	1	--	--	35,000
General Item Storage Unclassified or Unknown	25	--	--	605,787
Outdoor Property, Vehicles				
Brush, Grass and Light Ground Cover	23	--	--	3,446
Dumps	2	--	--	1
Trees	8	--	--	5,598
Fences, Poles	10	--	--	3,230
Trash and Rubbish	223	1	--	31,250
Mailboxes	1	--	--	50
Forest, Standing Timber	3	--	--	2
Outdoor Property Unclassified or Unknown	2	--	--	8,438
Pier and Wharf	1	--	--	1,000
Buildings under Construction	11	--	--	2,592,321
Buildings Under Demolition	1	--	--	100
Vacant Property	46	4	--	1,043,966
Unoccupied Property	1	--	--	5,000
Motor Craft (65 Ft. and Under LOA)	29	1	--	402,100
Vessel (Under 1,000 GT)	2	--	--	40,000
Ship, Passenger	1	--	--	3,000
Ship, Combat	1	--	--	12,000
Non Self-Propelled Vessel	6	--	--	222,500
Commercial Fishing Vessel	20	1	--	775,750
Watercraft Unclassified or Unknown	5	--	--	38,240
Railway Car; Passenger, Diner	3	--	--	20,300
Railway Car; Freight	11	--	--	308,200
Automobile	1,554	10	1	2,561,911
Bus, Trackless Trolley	8	--	--	32,050
Truck, Flammable Liquid, Chemical Tank	13	--	--	236,259
Truck, General	480	7	--	1,996,080
Motorcycle	27	1	--	45,700
Industrial or Commercial Trailer	25	--	--	492,600
Ground Transport Vehicle Unclassified or Unknown	2	--	--	250
Personal Business and Utility Aircraft Under 12,500 LBS. Gross Weight	1	3	--	300,000
Construction Equipment	23	--	--	851,453
Farm Tractor and Equipment	17	1	--	125,403
Crane, Mobile and Fixed	1	--	--	12,000
Industrial Truck: Fork Lift and Material Handling	56	1	--	1,001,208
Ski Lift, Aerial Tramway, Cable Car, Mono-Rail	1	--	--	7,000
Special Vehicle Unclassified or Unknown	4	--	--	91,600
Miscellaneous Special Unclassified or Unknown	20	1	--	43,269
Miscellaneous				
Laboratory: Chemical, Biological and Medical	3	1	--	1,400
Laboratory: Physical, Material Testing Hydraulics	1	--	--	300
Laboratory: Radioactive Material	1	--	--	100
Laboratory: General Research	1	--	--	50,000
Poultry, Egg Production	4	--	--	48,500
Storage Barn	1	--	--	4,222
Animal Barn, Cattle, Pigs, Horses	5	--	--	216,200
Crops, Orchards	8	--	--	27,650
Shed	47	1	--	142,004
Privy	2	--	--	1,800
Awning, Canopy	1	--	--	100
Shelter: Storm and Weather	1	--	--	2,500
Conveyor	1	--	--	5,000
Miscellaneous Outbuildings Unclassified or Unknown	2	--	--	2,550
Electric Light and Power Distribution System	4	--	--	3,200
Gas Distribution System, Pipeline	1	--	--	1
Water Supply System	1	--	--	400
Structural Clay Products Manufacturing	1	--	--	3,500
Cement Batch Mixing Plant	1	--	--	500
Non-Metallic Mineral Product Manufacturing	1	--	--	2,000,000
Iron Ore, Mining, Quarrying	1	--	--	1,000
Metal Ore Mine	1	--	--	256,000
Stone, Slate, Clay, Gravel, Sand, Quarry or Pit	3	--	--	11,000
Non-Metallic Mineral Mine, Quarry	1	--	--	47,500
Radio, Radar Site	2	--	--	58,000
Miscellaneous Unclassified or Unknown	93	6	--	1,691,770

	Incidents	Injured	Dead	$ Loss
SOURCE OF IGNITION				
Source of Ignition Unknown	428	5	1	3,251,166
Central Heating Unit	70	3	--	1,342,823
Service Water Heater	33	5	--	621,500
Space Heater: Stationary	113	12	--	2,366,329
Space Heater: Portable	28	2	--	409,323
Fireplace	121	1	--	1,156,948
Chimney, Gas Vent	81	1	--	747,075
Flue Pipe, Vent Connector	8	--	--	32,600
Steam, Hot Water Pipe	2	--	--	2,500
Heating Equipment Unclassified or Unknown	100	2	3	2,313,883
Stove, Range	346	44	3	1,801,014
Oven	10	1	--	28,050
Food Warming Appliance: Portable	14	--	--	26,624
Deep Fat Fryer	16	1	--	306,036
Cooking Unit: Portable	23	--	--	147,126
Open Fired Broiler: Fixed Type	12	--	--	39,937
Open Fired Broiler: Portable Type	24	1	--	336,745
Cooking Equipment Unclassified or Unknown	72	6	--	3,795,361
Cigarette	393	46	18	4,538,029
Smoker's Material Unclassified or Unknown	265	9	28	4,763,264
Electric Wiring, Cable: Permanent	328	4	1	2,198,617
Transformer	5	--	--	6,010
Switchgear	1	--	--	23,885
Panelboard, Switchboard	8	--	--	38,300
Switch, Outlet	41	2	1	514,854
Electric Wiring, Cable: Temporary	59	2	--	746,691
Battery, Rectifier	67	--	--	484,492
Electrical Distribution Equipment Unclassified or Unknown	204	3	1	2,821,591
Television, Radio	20	1	--	344,284
Motor: 1 HP and Over	10	--	--	167,920
Motor: Under 1 HP	14	2	--	9,846
Electronic Equipment: Communications	6	--	--	277,062
Electronic Equipment: Data Processing	1	--	--	80,000
Electric Blanket	12	--	--	42,373
Incandescent Lamp	43	1	--	374,661
Fluorescent Lamp	4	--	--	128,368
Electronic Appliances and Equipment Unclassified or Unknown	163	3	--	2,320,020
Dryer	39	--	--	94,610
Air Conditioning and Refrigeration Equipment: Central	4	--	--	16,700
Pressing Iron	6	--	--	45,032
Internal Combustion Engine	748	4	1	1,405,663
Tar Pot, Kettle	4	--	--	33,500
Incinerator	1	--	--	7,000
Air Conditioning Unit: Local	6	--	--	70,050
Refrigeration Unit: Local	11	--	1	192,850
Other Appliances and Equipment Unclassified or Unknown	16	2	--	378,640
Match	206	6	1	1,614,157
Lighter	45	3	--	702,945
Lamp	8	2	--	91,500
Candle, Taper	37	--	--	544,757
Cutting Torch	25	2	--	2,174,662
Welding Equipment	41	1	--	2,233,883
Torch: Other than Cutting, Welding	25	2	--	115,001
Hot Ashes, Embers	56	--	--	594,861
"Open" Flames Unclassified or Unknown	834	15	3	23,164,600
Structure: Attached	14	--	--	36,150
Structure: Detached	30	1	1	192,996
Lumber Yard	3	--	--	16,920
Outside Storage Container, Tank	1	--	--	15,000
"Open" Fire	23	--	--	296,100
Grass, Brush	11	--	--	157,150
Exposure - Unclassified or Unknown	97	--	--	1,306,935
Miscellaneous Source	1	--	--	300
Heat Treatment Equipment	14	--	--	118,054
Industrial Oven	3	--	--	30,500
Explosive	1	--	--	20
Fireworks	6	--	--	14,870
Bearing, Belting, Conveyor, Brake	20	1	--	185,377
Machinery, Equipment: Commercial and Industrial	13	--	--	23,075
Chemical Reaction	12	3	--	33,326
Miscellaneous Source Unclassified or Unknown	1,515	45	13	41,480,495

	Incidents	Injured	Dead	$ Loss
SPRINKLER PROTECTION				
Unknown or Not Applicable Sprinkler Protection	4,983	133	40	47,203,211
Complete Sprinkler Protection - Supervised or Standard Watchman	33	1	--	853,456
Complete Sprinkler Protection - Alarm to Fire Department	17	3	--	2,058,311
Complete Sprinkler Protection - Unsupervised, Local Alarms Only	79	3	1	746,462
Partial Sprinkler Protection - Supervised or Standard Watchman	16	1	--	39,577
Partial Sprinkler Protection - Alarm to Fire Department	28	--	--	28,366
Partial Sprinkler Protection - Unsupervised, Local Alarms Only	94	9	--	763,322
Sprinkler Protection - Insufficient Information to Classify	19	--	1	765,286
No Sprinkler Protection	1,675	91	32	62,512,401
Sprinkler Protection Unclassified	77	3	2	1,022,594
TIME OF FIRE				
Time 0000 - 0059 Hours	344	22	6	6,381,508
Time 0100 - 0159 Hours	280	5	6	6,524,675
Time 0200 - 0259 Hours	292	6	8	4,695,458
Time 0300 - 0359 Hours	282	11	6	7,960,793
Time 0400 - 0459 Hours	201	10	9	7,222,823
Time 0500 - 0559 Hours	209	12	8	6,355,007
Time 0600 - 0659 Hours	162	10	5	12,606,361
Time 0700 - 0759 Hours	283	10	7	4,036,764
Time 0800 - 0859 Hours	247	5	1	5,958,225
Time 0900 - 0959 Hours	277	11	2	3,827,913
Time 1000 - 1059 Hours	259	8	2	5,723,338
Time 1100 - 1159 Hours	294	6	2	2,389,826
Time 1200 - 1259 Hours	351	7	1	3,233,933
Time 1300 - 1359 Hours	314	12	--	2,769,644
Time 1400 - 1459 Hours	288	8	2	1,925,156
Time 1500 - 1559 Hours	357	14	2	2,804,152
Time 1600 - 1659 Hours	343	7	--	2,124,185
Time 1700 - 1759 Hours	418	14	--	7,925,102
Time 1800 - 1859 Hours	351	17	2	3,147,534
Time 1900 - 1959 Hours	344	7	--	3,910,061
Time 2000 - 2059 Hours	307	8	1	2,653,654
Time 2100 - 2159 Hours	288	17	3	4,383,141
Time 2200 - 2259 Hours	299	10	2	4,400,032
Time 2300 - 2359 Hours	233	7	1	2,750,501
DAY OF FIRE				
Sunday	994	49	14	16,731,082
Monday	873	21	6	11,835,646
Tuesday	947	29	10	23,364,061
Wednesday	986	34	12	14,802,928
Thursday	1,070	39	6	22,479,207
Friday	1,004	27	5	13,043,000
Saturday	1,146	45	23	13,737,062

CIRCUMSTANCES CONTRIBUTING TO FIRE CASUALTIES, 1981

	Incidents	$ Loss	Injured	Dead
CONDITION OF CASUALTY				
Condition of Casualty Unknown or Not Applicable	89	4,484,848	103	19
Asleep at Time of Fire	58	2,351,972	35	40
Bedridden or other Physical, Mental Handicap	3	4,500	2	1
Impairment by Alcohol	21	565,514	15	9
Impairment by Drugs	1	15,000	--	1
Too Young to Act	5	89,700	3	2
Left Unattended (Children)	3	31,100	3	--
Condition of Casualty Unclassified	68	2,363,152	83	4
ACTION OF CASUALTY				
Action of Casualty Unknown or Not Applicable	69	2,875,590	51	38
Injured While Attempting to Escape	31	1,858,787	37	9
Over Exertion or Heart Attack	4	5,600	4	--
Voluntarily Entered or Remained for Rescue Purpose	7	212,100	9	2
Voluntarily Entered or Remained for Fire Fighting	65	2,765,285	81	1
Voluntarily Entered or Remained to Save Personal Property	5	47,870	6	--
Loss of Judgement or Panic	18	1,183,844	10	8
Received Delayed Warning	6	210,101	9	--
Action of Casualty Unclassified	47	1,440,860	37	18
IGNITION OF FABRIC				
Ignition of Fabric Unknown or Not Applicable	165	6,355,700	191	38
Outer Clothing	26	1,477,480	30	5
Sleepwear	11	362,600	6	5
Underclothing	1	600,000	--	1
Bedding and Bed Linen	15	362,506	6	12
Mattress or Pillow	4	16,000	2	2
Upholstered Furniture	11	403,100	3	8
Ignition of Clothing or Fabrics Unclassified	11	231,500	6	5
TYPE OF FABRIC				
Type of Fabric Unknown or Not Applicable	181	6,614,540	202	47
Cotton	22	942,445	15	9
Other Natural Fibre	1	63,000	1	--
Rayon (Viscose)	1	1,200	1	--
Other Synthetic Fibre	10	197,600	12	2
Mixture Fibres	13	286,101	7	9
Plastic Foam	2	80,500	1	1
Type of Fabric or Material Ignited Unclassified	12	1,296,500	5	8
CAUSE OF FAILURE TO ESCAPE				
Cause of Failure Unknown or Not Applicable	145	6,186,355	162	30
Trapped By: Rapid Spread of Fire/ Smoke Through Vertical Openings	12	1,127,000	8	8
Trapped By: Rapid Spread of Fire/ Smoke Through Horizontal Openings	21	1,447,309	7	16
High Flame Spread of Combustible Finish of Walls, Ceilings or Floors	6	227,447	5	3
Falling Debris	1	5,505	1	--
Explosion	20	513,655	25	2
Exit Blocked or Obstructed by Fire	4	132,245	5	1
Outdoor Fire Includes Forest, Brush	1	1,500	1	--
Cause of Failure to Escape Unclassified	38	1,214,066	30	16

SUMMARY OF FIRE LOSSES BY PROPERTY CLASSIFICATIONS, 1981

Property Group	No. of Fires	Percent of Total Fires	$ Loss	Percent of Total $ Loss	Injured	Percent of Total Injured	Dead	Percent of Total Dead
Assembly -								
Educational	84	1.2	1,871,646	1.6	3	1.2	--	--
Nightclubs, taverns	10	.2	13,540	.1	--	--	--	--
Restaurants, eating establishments	84	1.2	3,399,418	2.9	3	1.2	4	5.3
Others	73	1.0	4,518,144	3.9	1	.4	--	--
Institutional -								
Home for aged	11	.2	6,540	.1	--	--	--	--
Hospital day centre, home	21	.3	460,835	.4	--	--	--	--
Others	14	.2	10,015,936	8.6	--	--	--	--
Residential -								
One- and two-family dwellings	1,899	27.0	28,076,710	24.2	93	38.1	45	59.2
Apartments	477	6.7	9,399,578	8.1	53	21.7	12	15.8
Hotels, motels, rooming houses	156	2.2	2,887,186	2.5	13	5.3	7	9.2
Dormitory, bunkhouse	19	.2	295,475	.3	--	--	--	--
Mobile home, mobile camp	120	1.7	1,605,347	1.4	2	.8	4	5.3
Recreation vehicle	69	1.0	412,765	.4	4	1.6	--	--
Others	5	.1	232,500	.2	--	--	--	--
Business and personal service	56	.7	2,775,926	2.4	--	--	--	--
Mercantile	159	2.2	12,181,830	10.5	5	2.1	1	1.3
Industrial manufacturing	197	2.8	9,113,028	7.9	5	2.1	1	1.3
Industrial storage	325	4.6	7,942,753	6.8	18	7.4	1	1.3
Outdoor property, piers, wharves	273	3.8	53,015	.1	1	.4	--	--
Watercraft	64	.9	1,493,590	1.3	2	.8	--	--
Rail transport and equipment	14	.2	328,500	.3	--	--	--	--
Automobile	1,554	22.1	2,561,911	2.2	10	4.1	1	1.3
Other ground transport & special vehicles	657	9.3	4,891,603	4.2	11	4.5	--	--
Aircraft	1	.1	300,000	.3	3	1.2	--	--
Remainder	677	9.6	10,890,082	9.4	17	7.0	--	--
TOTALS	7,023		115,709,786		244		76	

LOSSES OF $500,000 AND OVER, 1981

Incident	Municipality	Property Classification	Act or Omission	$ Loss
CBU81103024	Burnaby	Electrical Manufacturing	Miscellaneous Act or Omission Unclassified	900,000
CCR811222011	Cranbrook	Delicatessen	Incendiarism, Suspected Incendiarism No Charges Laid	750,000
CJO81010611	Fort St. John	Shopping Mall	Incendiarism, Suspected Incendiarism, No Charges Laid	778,000
CKE81082418	Kelowna	Building Under Construction	Criminal Offence	2,000,000
CKE81120305	Kelowna	Agricultural Supply Storage	Miscellaneous Act or Omission Unclassified	585,000
CLA810426061	Langley	Lumber Mill	Miscellaneous Act or Omission Unclassified	1,243,400
CPG81032808	Prince George	Tanker Truck	Welding or Cutting too Close	560,000
CPG81070918	Prince George	Apartment Building	Miscellaneous Act or Omission Unclassified	2,300,000
CRO810205021	Rossland	Elementary School	Incendiarism, Suspected Incendiarism, No Charges Laid	620,805
CVA810201101	Vancouver	Apartment Building	Criminal Offence	1,000,000
CVA810304061	Vancouver	Church	Incendiarism, Suspected Incendiarism, No Charges Laid	700,000
CVA810508011	Vancouver	Over 20 Units With or Without Business	Incendiarism, Suspected Incendiarism, No Charges Laid	750,000
CVA810903041	Vancouver	Building Under Construction	Incendiarism, Suspected Incendiarism, No Charges Laid	500,000
CVI81013104	Victoria	Hotel	Criminal Offence	500,000
CVI81021804	Victoria	Building Supplies Retail	Misuse of Source of Ignition Unclassified	1,017,000
DCO811112082	Coldstream	Fibreglass Plant	Miscellaneous Act or Omission Unclassified	700,000
DMT81060207	Matsqui	Prison, Pentitentiary for Men	Riot, No Charges Laid	10,000,000
DNS81120811	North Saanich	Marine Passenger Terminal	Welding or Cutting too Close	550,000
DPI81082411	Pitt Meadows	Sawmill, Planing Mill	Welding or Cutting too Close	500,000
DRI810322221	Richmond	General Business Office	Arson or Other Fires - Unclassified or Unknown	1,302,000
DSQ81070318	Squamish	Marinas, Boat and Ship Storage	Disposal of Smokers' Material	700,000
FNC811014011	Nanaimo County	Hotel, Seasonal Use	Arson or Other Fires - Unclassified or Unknown	500,000
FPC81062811	Prince Rupert County	Non-Metallic Mineral Product Manufacturing	Miscellaneous Act or Omission Unclassified	2,000,000
TLA810906062	Ladysmith	Retail Sales	Incendiarism, Suspected Incendiarism, No Charges Laid	500,000
VCA81111909	Cache Creek	Department Store	Part Failure, Leak, Break	3,000,000
VLI81031705	Lillooet	Hotel	Electrical Short Circuit	600,000
VPO81071305	Port Alice	Miscellaneous Mercantile Unclassified or Unknown	Miscellaneous Act or Omission Unclassified	1,000,000
27				$36,465,205

10-YEAR PROPERTY FIRE LOSS COMPARISON, 1972 - 1981

	1972	1973	1974	1975	1976	1977	1978	1979	1980	1981
(1) Number of fires	8,120	7,613	7,526	7,782	7,433	7,523	7,441	7,655	7,605	7,023
(2) Loss	$37,389,116	$45,693,116	$62,842,182	$66,461,246	$77,566,724	$78,746,492	$81,596,417	$105,900,046	$108,664,176	$115,709,786
(3) Loss per fire (2) ÷ (1)	4,605	6,002	8,350	8,540	10,432	10,467	10,966	13,834	14,289	16,476
(4) Population (thousands)*	2,241.4	2,302.4	2,375.7	2,433.2	2,466.6	2,497.6	2,555.8	2,566.9	2,636	2,744
(5) Number of fires per 1,000 persons (1) ÷ (4)	3.62	3.31	3.17	3.20	3.01	3.01	2.91	2.98	2.88	2.56
(6) Per capita loss (2) ÷ (4)	$16.68	$19.85	$26.45	$27.31	$31.45	$31.53	$31.92	$41.25	$41.22	$42.17
(7) CPI adjustment factor +	1.053	1.129	1.261	1.401	1.537	1.647	1.774	1.91	2.09	2.39
(8) Loss adjusted by CPI (2) ÷ (7)	$35,507,232	$40,472,201	$49,835,195	$47,438,433	$50,466,313	$47,812,077	$45,995,725	$55 445,026	$51,992,425	$48,414,133
(9) Loss per fire adjusted by CPI (3) ÷ (7)	$4,373	$5,316	$6,622	$6,096	$6,787	$6,355	$6,182	$7,243	$6,837	$6,894
(10) Per capita loss adjusted by CPI (6) ÷ (7)	$15.84	$17.58	$20.98	$19.49	$20.46	$19.14	$17.99	$21.60	$19.72	$17.64
(11) Fire fatalities	100	116	129	129	110	94	98	125	77	76

* Population statistics were provided by Statistics Canada. The figures for 1976 and 1981 are actual census figures. The others are estimates by Statistics Canada.

+ Adjustment Factor. In an effort to get a more realistic picture of losses over the years, some form of adjustment factor was necessary to take inflation into consideration. We chose the Consumer Price Index for Vancouver with 1971 = 1.000.

NUMBER OF FIRES, 1972 - 1981

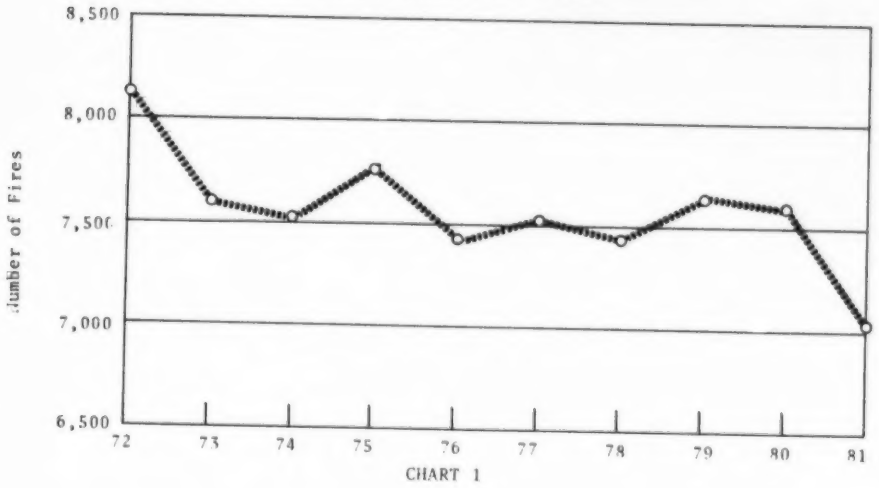

CHART 1

NUMBER OF FIRES PER 1,000 PERSONS, 1972 - 1981

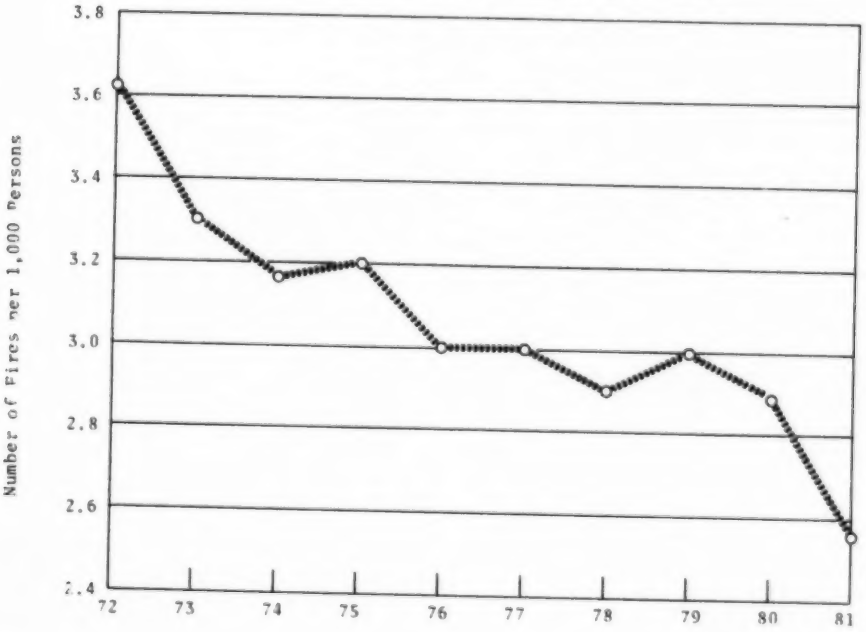

CHART 2

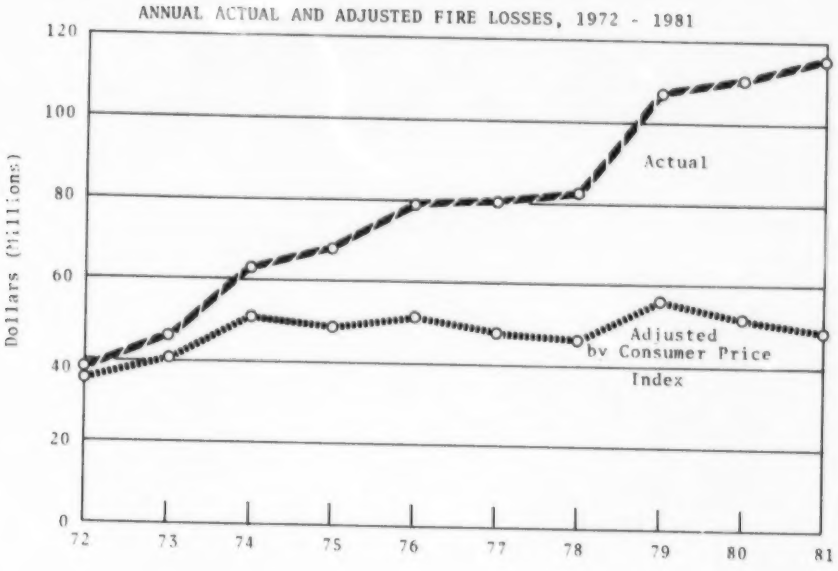

CHART 3

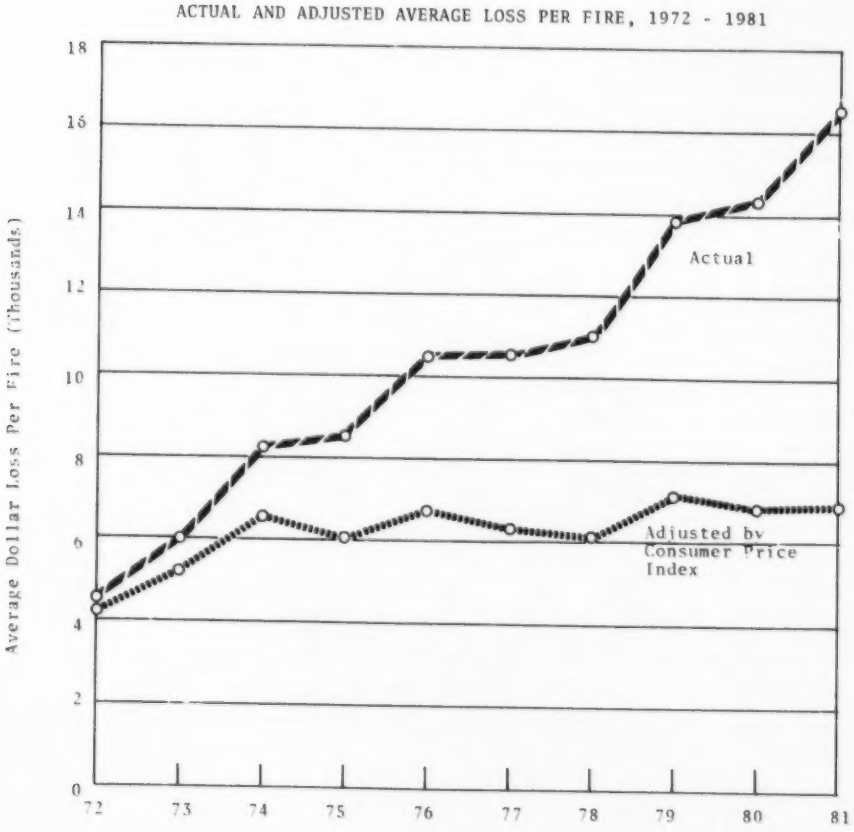

CHART 4

ACTUAL AND ADJUSTED ANNUAL PER CAPITA LOSSES, 1972 - 1981

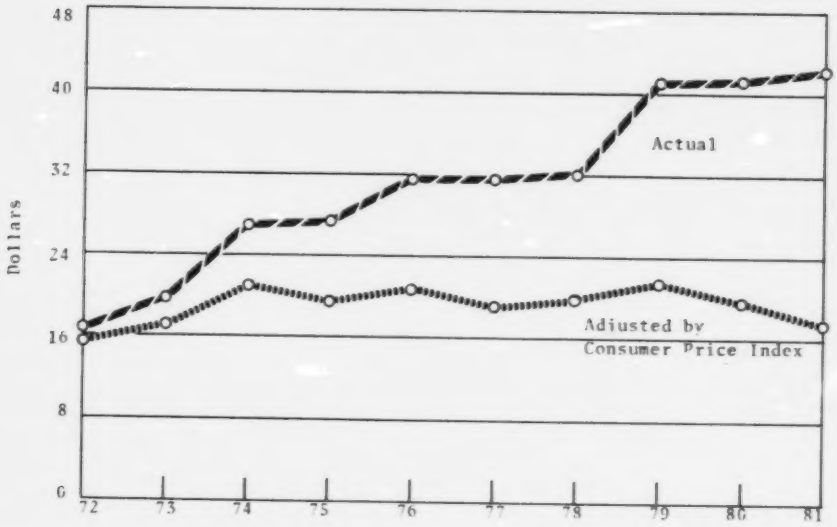

CHART 5

ANNUAL NUMBER OF FIRE FATALITIES, 1972 - 1981

CHART 6